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PERCEPTIONS ON EDUCATION FOR SUSTAINABLE DEVELOPMENT

The American University in Cairo

Graduate School of Education (GSE)

Perceptions of Education for Sustainable Development in Egypt: Prospective Changes in
Teaching Practices

A Thesis Submitted to

The Department of International & Comparative Education

In partial fulfillment of the requirements for the degree of Master of Arts in Educational
Leadership

By Hanan Salah Abozaied

Under the supervision of Dr. Heba EL-Deghaidy

Spring 2018

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Abstract

This study explores the perceptions of university faculty members about the concept of Sustainable Development (SD) and Education for Sustainable Development (ESD). It focuses on how their different perceptions influenced their teaching practices while addressing sustainability issues with students. The participants are 18 academics in the English department under the faculty of Arts and Humanities in a private university in Egypt. They teach two academic language courses in the advanced level for undergraduates in different disciplines. The study adopts a sociocultural theoretical framework. It uses a qualitative research design. A preliminary survey was conducted at the beginning of the semester to explore faculty members perceptions, then, based on information collected from the survey, a workshop was delivered to expand discussion about SD and ESD concepts. Finally, a follow-up interview was conducted with participants who attended the workshop to explore whether or not their acquired knowledge about SD and ESD influenced their teaching methods. Results indicate that the workshop helped participants to have a clearer understanding of the concepts of SD and ESD. However, their teaching practices were not affected.

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1. Introduction

1.1 Background

There is a worldwide concern about the ongoing increase in the world's population and the current industrial practices since the industrial revolution (Glasby, 2002; Kates, Parris, & Leiserowitz, 2005; Sachs, 2015). Both of these concerns caused unexampled pressure on the planet's limited resources, a pressure that is usually justified by the needs to develop and provide people with better quality of life. The pressure on resources caused not only environmental challenges, such as climate change and depletion of natural resources, but also social, political and economic challenges embodied in extreme poverty and prevailing inequality (Sachs, 2015). With the current fast-paced depletion of resources that continues beyond the capacity of the planet, efforts of providing present generations with continuous supply of clean water, food and energy are becoming increasingly difficult, not to mention the difficulty of providing them for future generations.

Alarmed by these threats, a definition of the term Sustainable Development (SD) appeared in the famous Brundtland report in 1987. As defined in the report, "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development, 1987, p.43). The report was one major step towards changing the common understanding of development and transforming current and future policies to be in harmony with the ecological system. However, the term SD continued to evolve from 1987 until 1992 when it was broadly analyzed in the Earth Summit in the 40 chapters of *Agenda 21* (UNESCO, 2006). The change in the concept of SD is described by Sachs (2015) in the following words: "the definition of sustainable development evolved into a more practical approach, focusing less on intergenerational needs and more on the holistic approach linking economic development, social inclusion, and environmental sustainability" (p.17).

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This developed perspective which focuses on the environmental, social and economic pillars was also highlighted in the implementation plan of the World Summit on Sustainable Development [WSSD] (World Summit on Sustainable Development, 2002). Since then, the mission of promoting SD has spread worldwide. It has been strongly tied to higher education institutions with all the potentials they have to prepare future leaders who are capable of altering the world's current unsustainable system (Cotton, Warren, Maiboroda, & Bailey, 2007; Butt, 2016).

Many countries, including Egypt, declared adopting SD in their development agenda. In March 2015, the Egyptian Ministry of Planning, Monitoring and Administrative Reform officially announced adopting a strategic plan based on the UN SD Goals (Sustainable development goals - United Nations, n.d.) until the year 2030 (Sustainable Development Strategy, 2016). Egypt's share of the threats caused by unsustainable practices is significant (Selim, 2009). With overpopulation and economy based on increasing levels of production and consumption, Egypt is facing unprecedented depletion of its resources. Environmentally, air pollution is on the rise, especially in big and crowded cities which have 80% or more of the country's industry such as Cairo and Alexandria. As per the International Labor Organization (ILO), water and energy crises in Egypt are also growing due to overconsumption of these resources in agricultural, industrial and household activities (ILO, 2010 as cited in Sewilam, McCormack, Mader, & Abdel Raouf, 2015). Socially, based on a document published in 2012 by the United Nations Development Program (UNDP), Egypt faces a number of difficult challenges in issues such as gender inequality, corruption, overpopulation, unfair distribution of wealth and low political participation (as cited in Sewilam et al., 2015). Such major social problems are aggravated in spite of the series of economic reform policies adopted by the Egyptian government since the 1990s. According to Fahmy (2012), Egypt went through a phase labeled 'economic reform' that extended from 1990 till 2011. In this period, a program for economic stability by the World Bank and International Monetary Fund (IMF) was implemented together with other policies that paved the way for free-market economy. Although the program yielded some economic growth, it caused "a dramatic increase in monopolies as well as private wealth" (p. 364). The policies introduced

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focused on economic welfare and neglected social justice which led to the rise of a number of businessmen in control of the economy and the shrinking of the middle class (Fahmy, 2012).

All of the abovementioned problems can be some of the root causes that led to the Egyptian revolution in 25th of January 2011. The initial chanting of the protesters in the revolution were basically calling for ‘Bread, Freedom, Social justice, and Human dignity’ (Fahmy, 2012). They are all demands that reflect severe imbalance in the pillars of SD. According to EL-Deghaidy (2012), the uprisings in both Egypt and the Arab world are demands based on core sustainability concepts such as achieving social justice, respecting human rights and providing better quality of life. To achieve the balance, responsible citizens, who are not only aware of the problems but also have the will and the skills to solve them, are required. Therefore, Egypt, along with other countries worldwide, is in dire need for Education for Sustainable Development (ESD). As suggested by EL-Deghaidy (2012), infusing ESD in educational courses through a set of teaching practices can lead to transforming the learning experiences of people in Egypt, making them act in accordance with what Egypt really needs. Integrating ESD in the Egyptian education, especially in higher education institutions where leaders and policymakers are being prepared, can provide Egyptian citizens with the required skills to live sustainably.

1.2 Statement of Problem

Confusion over the meaning of a broad, controversial term like SD and its relevance to different academic disciplines made the process of inclusion to higher education curriculum difficult to achieve; it is claimed that the term has become a ‘buzzword’ with indistinct meaning. For better integration of SD in higher education curriculum, faculty members must have a clearer understanding of the term, the issues it involves and the roles they can play as educators to integrate it (Coral, 2009; Cotton, et al., 2007; Evans, Ferreira, Davis & Stevenson, 2016). According to Timmerman and Metcalfe (2009), concepts about sustainability are still not completely formed by the society “and the transfer from research to teaching plays an important role in shaping our understanding of what is meant by the term and its potential for bringing about effective

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social change” (p. 54). The area of exploring academics’ perceptions of SD and the contribution they can make in ESD is under researched, especially because Egypt is reported in literature among the Arab countries that lack sustainability awareness (Biasutti, Makrakis, & Frate, 2018; El-Awamri, 2015; EL-Deghaidy, 2012).

1.3 Purpose of the Study

The aim of this study is to investigate how faculty members teaching in a language department in an Egyptian private university perceive the concepts of SD and ESD and their relevance to their field; it also examines whether their understanding influences their teaching approaches. Based on their perceptions, the study explores their attempts to reorient two academic language courses to be tackled from an ESD perspective. It is anticipated that faculty members teaching in a language program may have limited knowledge about SD or may question its relevance to their field. Therefore, this study sought to investigate the changes that could happen in faculty members’ perceptions and, hence, their teaching methods as they expand their knowledge and acquire deeper understanding of the concept of SD. With sufficient knowledge about the concept and increased awareness about the issues related, faculty members may develop an internal sense of responsibility to provide a learning environment that promotes SD whether directly or indirectly.

1.4 Research Questions

1. What are the perceptions of faculty members in regards to SD?
2. How do faculty members perceive their expected roles as educators towards ESD?
3. How their perceptions of ESD influence their current teaching practices and the way they address the English language courses?

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2. Literature Review

2.1 Education for Sustainable Development (ESD)

Due to the environmental dilemma worldwide, many international entities initiated calls for educational institutions to address sustainability issues and promote sustainable development. Terms like Education for Sustainable Development (ESD) and Education for Sustainability (EfS) started to emerge in the literature. The strong relationship between SD and education was highlighted in Agenda 21 where the first detailed description of ESD appeared in chapter 36 (UNESCO, 2006). The description outlined four major priorities for ESD to work on: (1) to enhance basic education, (2) to change current education to address sustainability, (3) to increase people's awareness of the issue, (4) and to train leaders in all fields (UNESCO, 2006).

After the UN had launched a Decade of Education for Sustainable Development (DESD) from 2005 to 2014, ESD has been perceived as an important element in changing people's attitudes and behaviors towards creating and maintaining more sustainable societies (Andersson, 2017). The aim of this emerging field is to offer educational experiences different from the traditional ones which led to the recent environmental, social and economic threats; it also promotes for a holistic learning approach and deviates from the discipline-based education (Andersson, 2017; Bowden, 2010). This comes in line with what Bartlett explains about the concept of ESD as a challenge against "the dominant and accepted model which prepares children to follow behavioral norms of society and contribute towards economic growth" (as cited in Bowden, 2010, p.17). Many educators believe that ESD is promising in terms of increasing students' understanding of the connections between the environment, society and economy. It turns them into literate citizens who are capable of making effective social and economic decisions, but not at the expense of the environment (Qablan & Al-Qaderi, 2009). However, all of these concepts and connections cannot be highlighted to learners if educators themselves are not sufficiently aware of them. According to Ambusaidi and Al Washahi (2016), teachers are the key players in the process of change

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towards more sustainable communities because they can lead the classrooms and implement ESD. Hence, their views about SD and ESD are important.

2.2 ESD in Egypt

In Egypt, some attempts were made to integrate sustainability in the Egyptian education, both on the school level and the university level. The most cited attempt in literature is the cooperation project between Egypt and the European Commission called EduCamp under the TEMPUS program. EduCamp's mission was to introduce ESD to the Egyptian national education system and it was specifically targeting school teachers to provide them with the necessary resource kits and training (EduCamp, n.d.). The project also led to the launching of centers of sustainability in different Egyptian universities with a main goal to follow-up on the project's long-term effectiveness (El-Awamri, 2015).

In higher education, there are two universities in Egypt which are known to have some level of engagement in sustainability. The first is Heliopolis University (HU) which is described as the first university in Egypt to announce that SD is its main theme and guiding principle in all the disciplines offered (Heliopolis University, 2017). As reported by Bedawy (2014), HU has SD clearly mentioned in the university's mission and vision; all the educational programs in the university are designed to address sustainability in different ways. Furthermore, programs were all established to follow what the university called the four C's of SD which are "Engaging in Context, Raising Consciousness, Assimilating Content and Making a Contribution" (Bedawy, 2014, p. 479). However, one of the challenges of embedding ESD in HU, as explained by Dr. Omar Ramzy the head of the university's marketing department, is that the school system in Egypt sends students to university without the basic understanding of ESD principles. This causes the university educators at HU some difficulties, especially with freshmen. It makes it more challenging to guide students to think about their disciplines from a sustainable-development lens (Bedawy, 2014). However, HU academic staff participated in several capacity building projects funded by international agencies. These projects aimed at

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providing academic staff with awareness, ESD curricula and new teaching methodologies (HU, n.d.).

Another university that has taken some steps towards sustainability inclusion, both on campus and in the curriculum, is the American University in Cairo (AUC). AUC was one partner university in the EduCamp project and it provided support to the teacher training program done by the project through the university's Center of Sustainable Development (CSD) (EduCamp, n.d.). AUC also offers a graduate program in sustainable development which provides in-depth study for all the science behind sustainability and its practices in the environment, society and economy (Center for Sustainable Development website, n.d.). As argued by El-Awamri (2015), this graduate program in particular helped to enhance the students' sustainability literacy; students in this program had high scores in the Sustainability Literacy Test which was developed by the Higher Education Sustainability Initiative (HESI). This might indicate that developing similar programs in other universities in Egypt is one way to increase the understanding of SD which Egypt is adopting in its strategic plan.

Despite the growing efforts to promote ESD in Egypt and infuse it in different curricula, Egypt is still in a very early stage of implementing ESD (Biasutti et al., 2018). Egypt, together with other Arab countries such as Lebanon and Jordan, still has difficulties in engaging its higher education in ESD due to lack of awareness among staff members, following traditional methods in teaching and lack of ESD curriculum (Biasutti et al., 2018). In a research conducted by El-Awamri (2015), the author concluded that there is general lack of awareness of sustainability literacy in Egypt. This conclusion is based on results from testing the sustainability literacy of both graduate and undergraduate students studying at AUC in four fields: Engineering, business, sustainable development and public policy and administration. The lowest scores were the scores of students in engineering and public policy due to the focus of their programs on highly technical skills. These results should be taken into consideration because, as mentioned above, AUC is viewed among the committed universities to the mission of achieving SD in Egypt. Therefore, it is an indication that progress in increasing awareness of SD in

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Egypt through education remains significantly limited, especially if compared to progress done worldwide.

2.3 ESD in Universities

Universities are widely perceived as the institutions responsible for preparing graduates to become future leaders, professionals and policy-makers. Those graduates will face today's social, economic and environmental challenges and will be responsible for future generations as well. Therefore, universities have a moral obligation towards achieving sustainability and disrupting the world's current destructive approaches (Cotton, et al., 2007; Butt, 2016). The potential to infuse ESD in universities is high because universities offer teaching, learning and research opportunities which are needed to create innovative systems in harmony with the ecological system (Butt, 2016).

However, what is still more dominant among universities nowadays is a common practice of perpetuating the same business-oriented educational approach that caused damage to the globe in the first place (Butt, 2016). It is an approach that mostly focus on increasing production, consumption and profit, with less consideration to damage caused to other elements. Moreover, according to Higgins and Thomas (2016), since the United Nations' Decade of Education for Sustainable Development (UNDESD), the ongoing arguments among sustainability educators is mostly about achieving transformational change in university curricula to make learners able to create a more sustainable future. However, after this period of time and these amounts of official documents, there are still doubts that universities worldwide actually made the required progress towards integrating ESD in their curricula as per Higgins and Thomas (2016). Many universities that made the decision to adopt ESD approach are still more engaged in greening the campus than in making real change in the pedagogy. This reflects that higher education institutions still lack thorough understanding of the complex challenge. Although greening the campus is indeed an important practice, it is not enough to make the required transformation in students' learning (Higgins & Thomas, 2016).

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In addition, Evans et al. (2016) note that attempts to embed ESD in educational programs are mostly done by a limited number of teachers and through adaptation on a course level. This makes the process of embedment isolated from the systems that are running the educational institution. The authors believe that true embedding of ESD does not happen by mere adaptation, but by complete transformation of the systems, policies and philosophies involved. When teacher training institutions, for example, try to integrate ESD, the process is usually done by dealing with ESD as an “add-on” to a course; the inclusion is done “in a tokenistic way, rather than in a thorough and systematic fashion” (p. 67). Moreover, in some fields ESD is clearly evident, such as environmental science, while in others it is almost not existent, such as psychology, so it might be viewed as marginal in the curriculum (Cotton et al., 2007). This situation reflects a need to investigate how faculty members in universities, who are responsible for curriculum change, comprehend SD and ESD so that they can properly do the integration required. In addition, understanding the concept of ESD needs to be accompanied by having practical knowledge about ESD pedagogy and how it can be practiced.

2.4 Perceptions of ESD among Educators

As reported by Cotton et al. (2007), part of the difficulty of ESD inclusion in higher education pedagogy is the confusion among faculty members over the meaning of SD and its relevance to certain disciplines. The same argument is shared by Coral (2009) who contends that lack of understanding of SD within academics is the major barrier especially when trying to infuse ESD in all courses. Evans et al. (2016) explain that one of the lessons learned about ESD in teacher education programs is that sharing one common agreed-upon definition for EfS, a very close alternative to the concept of ESD, is not possible because the term is ‘fluid’ (p.71) and has room for different interpretations. However, the authors are not perceiving this conclusion negatively because it is in line with “a similar lack of clarity [which] has been reported at major international conferences focusing on conceptualizing EfS” (Evans et al., 2016, p.71).

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It is argued that faculty members' beliefs about SD can be one of the main reasons to either help or hinder proper integration of ESD into curriculum. This is because "what constitutes ESD remains a matter of personal interpretation, and may include changes to either content or process" (Cotten et al., 2007, p. 589). In spite of the significant role that faculty members can play in redirecting education towards ESD, there are few studies that address faculty members' perceptions of SD and how their perceptions are translated into attitudes and practices in class (Cotton et al., 2007). Moreover, the few studies conducted in this area either investigate the issue with pre-service and student teachers in teacher training programs (Andersson, 2017; Ambusaidi & Al Washahi, 2016; Evans et al., 2016), or academics in the faculties of environmental science, a major that is clearly relevant to SD (Qablan & Al-Qaderi, 2009). The same concern is shared by Reid and Petocz (2006); they suggest that educators who call for adopting ESD in higher education usually have an environmental-study background; therefore, they share a language that is used to discuss matters in sustainable development which might not be familiar to other educators in different fields.

In the literature, even less studies address the perceptions of in-service faculty members whose disciplines are not viewed as of direct relevance to SD. One exception is the study conducted by Cotton et al. (2007) in the University of Plymouth in England. It was conducted at a time when the university's Center of Sustainable Futures (CSF) was shifting the university to be a model worldwide in integration of sustainability into the curriculum, the campuses and the community. Participants in the study were current academics from different disciplines; they shared their views of the concept of SD and ESD through a survey. The results showed that although the majority of participants strongly support ESD, 17% of them said that they do not know what the authors mean by SD. As for SD relevance to their disciplines, 35% were neutral in the questions concerning relevance; this reflects faculty members' uncertainty about connections between SD and what they teach. Moreover, collected data indicated that there was strong support from the faculty members to the environmental perspective of SD while there was more confusion towards its relation to the social and economic perspectives. As a result, researchers of the study rated the overall level of participants' understanding of

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SD as “fair” (p.592). Such results are reported from a university in the UK, a country which is known for its progress in the field of incorporating ESD into higher education.

Another exception is a similar study conducted in Macquarie University in Australia by Reid and Petocz (2006). The study was funded by Macquarie University, as well as another Environmental entity in Australia, in an attempt to adopt the recommendations of the World Summit that was held in Johannesburg in 2002; some recommendations were about the inclusion of SD in all levels of education. The university responded to the Summit and acknowledged the real need to transform its educational programs so as to prepare students to deal with sustainability issues. Therefore, researchers in this study also explored university lecturers’ understanding of SD and its relation to what they teach. This was done through a number of interviews with different academics teaching for postgraduate students. They were from completely diverse disciplines such as business, music, geography, language, psychology, literature and marine science. In addition, researchers excluded on purpose faculty members who are involved, in one way or another, in environmental or ecological activities to keep the focus of the study on other disciplines which are perceived to be less relevant to SD.

In fact, the study enabled academics to suggest their own definition of sustainability instead of imposing a certain definition on them. Moreover, responses about the definition were divided into three categories from the most limited definition to the most inclusive one. The first category is referred to by researchers as “Distance” (p. 116) which means that interviewee responded to the question about the definition of sustainability by providing a dictionary definition; in other words, they referred to the meaning: to keep one thing going. The second category is named “Resources” (p.116). From its name, this category includes answers from academics who referred to different kinds of resources, such as natural, biological and human resources, while explaining the meaning of sustainability from their point of view. The third category for definitions is referred to as “Justice” (p. 117). Respondents under this section referred to sustainability in the context of fairness. Their answers indicated that sustainability happens only when justice is achieved whether within one generation or across generations; one interviewee even extended the scope of justice to include justice among species.

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Another division was done by the researchers to the relevance of SD to teaching as perceived by academics. Relevance to teaching was divided into three categories from no relevance to completely relevant. The first is named “Disparate” (P. 113) which refers to academics who see SD as completely irrelevant to their teaching. The second is called “overlapping” (p.114); it includes academics who see that sustainability overlaps with their teaching. The third category is named “integrated” (p. 114) which groups academics who perceive sustainability, with all its different forms, as a main component of teaching.

Results show that, surprisingly, the majority of the participants in Reid and Petocz’s study (2006) either perceive sustainability and teaching as separate and irrelevant or as overlapping. The results made the researchers conclude that the language used in the field of sustainability and all its terms like SD, ESD and EfS are not part of the vocabulary academics are usually engaged with; the terms bring to their minds only extremely basic ideas about sustainability and especially those connected to widespread environmental views such as recycling.

However, results of other studies indicate that educators who took part in a course that provides them with tools to include SD in their teaching are more likely to feel socially responsible and to be willing to promote SD (Andersson, 2017). The author concludes that increasing teachers’ awareness about issues related to SD through a course devoted for that can impact teachers’ decisions in class to draw students’ attention to SD issues. The same conclusion is shared by Biasutti et al. (2018) whose research included professional development program for eight faculty members from different disciplines (Biology, multimedia programing, mathematics, and finance) working in Jordanian universities. The program was part of the international Tempus project called Reorient University Curricula to Address Sustainability (RUCAS). Its main aim is to train academics to implement ESD in pedagogy and curriculum of undergraduate students; it also aims at diffusing ESD policy in the higher education institutions that are participating in the project so that they can act as role models in the Arab world. The procedures included three workshops. The first workshop contained ways to revise a course curriculum to infuse SD themes in its context and also contained explanation for teaching strategies appropriate for ESD such as the learner-centered approach. The

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second workshop included peer review for the revisions that academics made to course curriculum. The third workshop was about implementing the course. Academics worked both individually and in teams during these workshops. Their views and reflections about the workshops were explored through focus groups. Qualitative data resulted from the focus groups showed how academics changed their perceptions about ESD and started to see its relevance to their disciplines. This leaves room for hope that similar workshops or ESD projects can lead to more profound inclusion of SD in higher education curriculum. Also, results from the focus groups showed some concerns about changing curriculum to an ESD perspective such as time constraints, students' resistance, academics' resistance and difficulties of managing large classes.

In the Arab world, some studies addressed the topic of teachers' understanding of ESD and their classroom behaviors. One study was conducted in Oman to test SD perceptions of prospective teachers from the Faculty of Education at Sultan Qaboos University (SQU) (Ambusaidi & Al Washahi, 2016). In this study, student teachers were selected from both humanities and science specializations. They were given a questionnaire inquiring about sustainability issues; the questionnaire was divided into four domains: The concept of SD, cultural diversity, renewable energy and equity. Results of the study showed that the student teachers have high perceptions in the four domains. However, it cannot be inferred from the results that they have the ability to transfer their perceptions to students and make the expected influence. According to the researchers, this can be achieved by directing planning efforts towards three areas "policy, teacher preparation programmes and research" (p. 17).

Another study from the Arab world was conducted in Jordan (Qablan & Al-Qaderi, 2009). It focused on academics' attitude and classroom practices in relation to ESD in Jordanian public universities. Although the study tackled mainly academics in the field of environmental sciences, the methodology and results are worth considering for further research in the area of ESD teacher training in all disciplines. Researchers in this study used a survey called "the Education for Sustainable Development Questionnaire" (p.186) to evaluate academics' attitudes towards ESD and their classroom practices. Results indicated both moderate and favorable attitudes towards ESD; however, they also

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referred to rare practice of ESD in classrooms. In addition, results highlighted another contradiction between academics' beliefs against indoctrinating students about environmental issues and their practices in classrooms which showed traces of indoctrination.

This gap between academics' attitudes and their in-class practices is due to, as interpreted by the authors of the study, both personal and contextual factors. Firstly, one strong personal factor that can hinder matching beliefs and behaviors is habits. What academics kept repeating for a long time is very difficult to change. However, authors of the study conducted in Jordanian public universities suggest that ESD workshops or training programs that are well-planned "could potentially influence the effectiveness of attitude change by developing strategies to assist and support faculty to change their teaching habits" (Qablan & Al-Qaderi, 2009, p.189). Secondly, the contextual factors or what surrounds faculty members can also be responsible for the gap between their beliefs and actions in class. Issues like large classes, administrative work and the pressure to conduct and publish research in reputable journals increase the workload on academics and reduce their ability to reflect on and evaluate their teaching practices. To overcome this problem, Qablan and Al-Qaderi recommend participating in learning and teaching communities because, without them, it would be difficult to change academics' traditional practices. Being engaged in the process of exchanging ideas and teaching practices makes academics' have a wider scope regarding pedagogical knowledge, have better communication skills and have clearer understanding of problems in the community that need to be addressed.

In Egypt, one of the studies that was conducted to explore science teachers' perceptions of ESD is the study conducted by EL-Deghaidy (2012). It was part of a project to Reorient University Curricula to Address Sustainability (RUCAS). In this study, participants were student teachers in the school of education; they were continuing their postgraduate studies and were taking a course about teaching strategies. The course was adjusted to have a focus on sustainability because, as justified by the author based on analysis of survey responses, the participants lacked sufficient knowledge about ESD and the program at the school of education lacked courses to increase their knowledge in the

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much required field. Participants were involved in action research to develop their perceptions of SD and to create teaching approaches that promote sustainability through experiential learning and community-based learning.

Results of the study showed that at the beginning of the course, teachers constructed their concepts about SD in a way that showed more emphasis on the environmental perspective of SD; however, at the end of the study, their concepts changed by adding the social, cultural and economic perspectives. In addition, positive attitudes towards ESD approaches increased significantly among the teachers at the end of the course which reflects that teachers' realization of the importance of ESD practices had increased. The author suggests that the change might be the result of (1) changing the scope of the course to reinforce ESD teaching strategies as well as (2) engaging teachers in action research. It is argued that action research makes teachers reflect on their experiences and makes their learning experiences more meaningful (EL-Deghaidy, 2012).

2.5 ESD Pedagogies

In the literature, a number of studies tackled the issue of developing effective ESD pedagogies. It is argued that ESD pedagogies can offer students transformative experiences and empower them to take action regarding the complicated problems of sustainability. Many studies in the field associate ESD to experiential learning, inquiry-based/ problem-based learning, active/participatory learning, affective/emotional learning, community-service learning, student-centered approach and interdisciplinary/ cross-disciplinary approach (Eilam & Trop, 2010; Kalsoom & Khanam 2017; Mintz & Tal, 2016; Timmerman & Metcalfe, 2009).

Examples of applying ESD pedagogies in curriculum has different forms (Hopkinson & James, 2010). The dominant form includes slight modifications to the original curriculum which consists of basic knowledge about the subject. This form usually follows traditional methods in teaching but it offers, for example, lectures about SD topics occasionally or it urges students to start research based on an environmental

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issue. However, there are other pedagogical practices such as case studies, problem-based learning, role play and backcasting (i.e. having a specific desirable image for the future, then planning backwards to relate the present conditions and the needed plans to reach this futuristic image). In addition, there is a major stress on the importance of both interdisciplinary and transdisciplinary pedagogical approaches in ESD (Hopkinson & James, 2010; Coral, 2009) due to the nature of SD that already includes strongly interconnected dimensions (environmental, social and economic). This is an indication that designing separate curricula for different disciplines is acting against the core meaning of SD and might not lead to effective results. Furthermore, Eilam and Trop (2010) presented a model in their study that specified four essential components for effective incorporation of ESD pedagogies. The model they suggested is introduced through an example of a learning context (for more details, see Section 3.6.2.1.2).

Another important factor in ESD pedagogies reported by Hopkinson and James (2010) is relating environmental issues to students' day-to-day experiences. For example, in a chemistry lab, students can learn how certain daily practices in the lab contribute to immense environmental footprint, then they can practically learn actions that reduce the lab's footprint. This strategy makes them feel more connected to the calls they see and hear in different institutions or on the media about achieving sustainability (Hopkinson & James, 2010). The same principle of connecting environmental, social and economic issues to students' everyday life can be applied in disciplines other than chemistry. In the literature for example, a study was conducted by Garrard (2007) about ecocriticism and Education for Sustainability (EfS). The author of the study acknowledges the importance of offering students authentic experiences in their surrounding nature in order to increase their sense of respect for the physical environment. Garrard (2007) provides an example for a creative writing class in which students were taken in a field trip around a lake; students did not only discuss elements of creative writing, but also other political and economic elements. Based on anecdotes from students, Garrard (2007) states that "students often find working outside far more memorable and even transformative than a similar amount of time in a classroom" (p. 365).

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Hopkinson and James (2010) also offer an example from the University of Bradford in the field of pharmacy. This field is described by the authors as “a subject where the linkages with ESD are not immediately obvious” (p. 373) because most of the modules in pharmacy, based on curriculum review done by the authors, focus on main scientific facts and experiments in laboratories. However, individual attempts from academics in Bradford university included topics in some modules that addressed ESD concerns such as alternative medicine and its popularity among patients, as well as its social and economic impact on the market. The authors added that such topics are not normally discussed in pharmacy courses as they challenge the traditional curriculum that is based on pure science. All the previous examples of different pedagogical styles are believed to empower students to achieve the intended outcome of ESD which is taking action or changing the current course of behavior towards the environment, society and economy.

However, Timmerman and Metcalfe (2009) argue that universities are usually less successful in their attempts to implement sustainability on the pedagogical level than in their attempts to achieve it on the campus operations’ level, such as energy saving. This conclusion is based on Timmerman and Metcalfe’s (2009) analysis of two policy documents that were released in the University of British Columbia (UBC), a university which is famous for being a leader in higher education policies for sustainability. The two documents included the university’s vision for sustainability in both campus operations and teaching and learning. One of the reasons for being less successful in implementing the policies on pedagogical level is that the documents’ goals and strategies “are too general and thus potentially difficult to implement; the contained language is ambiguous and terms are left undefined” (p. 57). For example, although the policies have themes that are described by the researchers as having direct implications for pedagogy- such as curriculum design, ways of learning and new courses or programs- the policies did not specify the details about curriculum design and classroom interaction. There is no mention of, for instance, which faculties are responsible for designing the courses, whether or not academics teaching the courses are responsible for course changes and how students’ awareness about sustainability issues will be assessed. The researchers

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recommend that future policies need to include clearer and more detailed goals about pedagogical change that can be easily interpreted and, hence, implemented.

In addition to vague, undefined regulations to implement ESD pedagogies, Hopkinson and James (2010) explain three other obstacles to ESD embedment in curriculum: (1) perceiving ESD as irrelevant, (2) cramming curriculum and (3) insufficient institutional commitment. For the latter, they state in their study that educational institutions have a larger share of responsibility in defining and promoting ESD in their teaching and learning practices. They add that individual efforts that try to infuse ESD in specific courses will not be able to achieve the required results from embedding ESD. Hence, the authors noted that following a top-down approach to adopt ESD framework as well as the support from leaders in the educational institution can facilitate the process of infusing ESD in curriculum. In addition, a top-down approach helps in “reducing the number of escape routes and hiding places that academic colleagues are able to use when new curriculum change initiatives are introduced.” (p. 374).

2.6 ESD and Language Teaching

Due to the global and interconnected nature of the concept of SD, sustainability education requires the spread of both linguistic and cultural understanding to deal with the complicated issues of SD (Hubscher-Davidson & Panichelli-Batalla, 2016; Ter Horst & Pearce, 2010). Therefore, foreign language educators can play a vital role in ESD to help in establishing mutual understanding between communities that speak different languages around the globe. However, research tackling ESD and language teaching is limited in comparison to other disciplines (Hubscher-Davidson & Panichelli-Batalla, 2016).

The recent theories to language teaching are all based on communicative and contextualized approaches in which a foreign language is observed and meaning is learned in patterns and through a context rather than through separate words or fixed grammatical rules (Ter Horst & Pearce, 2010; Bowden, 2010). In this respect, some of

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the recent language teaching methodologies are similar to the methodologies recommended for ESD (see Section 2.5) such as problem-solving and student-centered approaches (Bowden, 2010). In addition, Ter Horst and Pearce (2010) explain that the UN's call for global ESD was accompanied by the language learning community's emphasis on "interdisciplinary approaches that connect students with communities speaking the target language, and that facilitate cultural and linguistic comparison" (p. 366-367). Moreover, English language in particular is used as a medium, not to replace other languages, but to exchange ideas, conduct research, have access to technology and connect with wider social networks (Bowden, 2010). As a medium language, it can help its learners to be engaged in the numerous international dialogues about sustainability.

There are some attempts to incorporate ESD in the realm of language teaching in universities that are worth considering. The first attempt is reported in a research by Hubscher-Davidson and Panichelli-Batalla (2016) as part of the strategic goals of Aston University in the UK for 2020. One of the university's goals is to graduate students who are literate in sustainability and have a sense of social responsibility. Therefore, the authors conducted two case studies to examine whether the language programs in the university achieve this aim or not. The first case study focused on undergraduate students in the final year; students were given surveys about their attitudes towards SD and the role of language study. The second case study focused on surveying first year undergraduate students before and after incorporating SD issues in their Spanish language modules. The incorporation of SD was done in one class by dividing the class time into three parts: (1) discussing how students understand SD and the roles they can play on campus and at home in interactive small groups, (2) giving a short lecture and a presentation about the meaning of SD which adopted the definition of the World Commission on Environment and Development and emphasized the three pillars of SD and the importance of adopting a futuristic perspective, (3) continuing the originally planned topic of the class which was to discuss the architectural work of the Brazilian architect Oscar Niemeyer while at the same time discussing whether his works are considered sustainable or not. In this third part, students were free to explain whichever point of view they had about his architects without imposing a specific point of view.

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Results from the first case study showed that some students in their final year never heard about SD or could not define it; however, the majority in this sample were aware of the concept and reported being engaged in sustainability practices either at home or on campus. The interesting result from this sample is that almost half of the students were skeptic about the relevance of language courses to SD. As for the second case study, results showed that, before the SD intervention in the Spanish architecture class, results were somehow similar to the sample from the first case study; almost half of the students in their first year heard about SD before, but their definitions of the term were not completely clear. Some of them also left the definition blank. However, three weeks after the SD intervention in the course, students' answers for the questionnaire showed significant improvement, especially in their understanding of what SD is and the contribution they can make. Another significant improvement after embedding SD in the class is the linkages students were able to draw between language learning and SD. Students reported that in their Spanish language class they study social issues in Hispanic countries such as racism, poverty and sexism, all of which are related to the aim of sustaining social development. They also explained the connection between learning languages as an international study and being engaged in international quests to achieve SD. Based on the previous results, Hubscher-Davidson and Panichelli-Batalla (2016) conclude that actively planning for an ESD agenda in language programs is not only possible, but also necessary to graduate students with high level of sustainability literacy. They also argued that embedding ESD in early years at the university, and with gradual progression through the whole degree period, is more appropriate than embedding ESD in courses of the final year. One reason the authors presented to support this argument is that students in their final year would feel that the added SD component is an overload.

The previous example of the two case studies can be classified as what Evans et al. (2016) described as an “add-on” (p. 67) to the course rather than a complete transformation of the course or program. However, the following example to infuse ESD in language teaching is done more holistically and follows an interdisciplinary approach; it shows a model of complete transformation to language teaching. In the research conducted by Ter Horst and Pearce (2010), students taking an upper level German

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language course that focused on German conversation and composition worked on a project that connects German language with environmental science. The project included developing the online German content of Appropedia.org, a wiki-based website that is specialized in SD solutions and general ways of sustainable living. The website has the same features of the famous Wikipedia and provides the ability for anyone to add, edit and share knowledge in this field.

When the project started, the available content on the website was mainly in English. Some content was developed in Spanish, and one article was only available in German as a result of low-quality translation. Therefore, the aim of the project was to enrich the German content on the website through the participation of students enrolled in the German course. There were two phases to develop the German content. First, some students were devoted to start the foundation of the German content by: (1) adding a welcome note and guidelines for German-speaking users, (2) translating content that is on the website from English to German and (3) searching for content from German organizations specialized in the field of SD to be ready for translation into English; all of this was done under the supervision of the researchers leading the project through weekly meetings. Second, a unit about Appropedia and SD was developed and added to the German course based on what the students prepared on the website in the first phase. It was easy to add this unit because the German course was designed as a content-based course. The unit involved written assignments, oral discussions and presentations about the theme of SD and Appropedia; for example, after the translation of the website content, they gave a presentation about the project and finally, they wrote a paper in which they pretended to be working in a German organization for international development. In the paper, students either argued for or against spending the organization resources on a certain process to be implemented based on the environmental, social, cultural, and economic benefits of this process. As a result, students learned new vocabulary and improved their linguistic, as well as cultural and scientific, knowledge through the project that lasted for 5 weeks.

The authors of the study reported that this was a challenging task for students in upper level in German language because students had to deal with advanced texts.

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However, they reported that students were highly motivated by the project as they felt that they are making a contribution to the website that could benefit others. They all finished the task on time and without expressing being frustrated from the task. The website's participatory nature allowed for peer-editing as students could read each other's work and start editing and enhancing the quality of the German content. Also, students invited native speakers of German to read the content they added and help them in editing whenever they felt that translation needed correction. This process acted as a supporting and motivating technique for students. Ter Horst and Pearce (2010) concluded that the end result of this interdisciplinary project showed progress not only in students' language proficiency but also their awareness of the global issue of SD.

All the previous studies provided practical examples of integrating ESD in language teaching. They showed not only the possibility of integration, but also the necessity of it so that language learning becomes an experience that engages students in the global discussions about Sustainability. Attempts of integration ranged from an added sustainability component to a language course to a complete transformation of another language course. In addition, similarities between the recommended ESD pedagogies and modern language teaching methodologies make this process of integration manageable; however, it needs active planning from academics involved in developing the language programs in universities. The following section clarifies the theoretical framework adopted in designing this study.

2.7 Theoretical Framework

This study uses sociocultural learning theory as a framework. The theory, developed by Vygotsky, explains how human development occurs through interaction between interpersonal, cultural and individual (or inherited) factors (Tudge & Scrimsher as cited in Schunk, 2012). Vygotsky's theory emphasizes that learners change the way they think only when the learning is associated with their worlds. In addition, interactions that happen between people, institutions and other entities lead to changes in learners' concepts (Schunk, 2012). More emphasis was added on the social perspective of the theory because it helps learners to construct their own knowledge based on what they

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encounter in society. According to Schunk (2012), Vygotsky's theory points out that learners' social environment affect their cognition through various tools. One of the tools is language because language is a medium through which knowledge and culture are transmitted from a more experienced member in the society to a less experienced one (Shabani, 2016).

In addition, Vygotsky's theory stresses the need to measure or diagnose learners' levels and prior knowledge as a first step in order to match their level with the learning offered to them (Vygotsky, 1978). Subsequently, educators can construct new knowledge on the basis of learners' previous knowledge. Another important aspect in Vygotsky's theory is the Zone of Proximal Development (ZPD) which refers to the development that less knowledgeable learners can reach through interacting with more knowledgeable peers (Shabani, 2016). The more knowledgeable peers try to provide guidance and assistance to the less knowledgeable while pushing them towards the zone in between what they already know and what they still need to know. This pushing is done by different forms of instructing, mentoring and training (Shabani, 2016). As explained by Schunk (2012), ZPD is the area where educators work with learners to help learners reach a point of independence in performing a task that was once perceived as difficult. This interaction between educators and learners in the ZPD can lead to cognitive change (Schunk, 2012).

Although Vygotsky's sociocultural theory was developed in the context of school learning and children, the theory has applications in adult learning and it has been used in the context of teachers' trainings and professional development (Shabani, 2016). Therefore, the theory was adopted in the current study; academics participating in this study are viewed as adult learners who can develop clearer perceptions of SD and ESD through social interactions. Before guiding them, there was a need to explore their prior knowledge and understanding of SD and ESD; in other words, the researcher needed to determine the ZPD of academics participating in the study in order to provide orientation that is neither known to all participants nor challenging to them. Therefore, a diagnostic questionnaire was distributed to help the researcher understand their prior knowledge about the topic, then design a workshop that builds on this knowledge. The aim of the

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workshop is to engage academics in conversations about the meaning and importance of the concepts of SD and ESD to Egypt and the globe. The discussion during the workshop is viewed as a type of social interaction with peers who have knowledge and/or expertise in the fields. With peers' assistance to clarify the issues related to education and SD, there is a chance that teachers can gain knowledge about SD and ESD or change their perceptions, and hence their teaching practices.

ESD pedagogies (see Section 2.5) is also strongly tied to concepts under constructivist and sociocultural theoretical perspectives. Armstrong (2011) pointed out that ESD pedagogical practices are in favor of learning that is based on social interaction and active engagement in the community. In ESD pedagogies, there is a strong connection between the quality of the learning experience and the social interaction that learners have with their peers, their instructors and their communities. For example, common pedagogical approaches in ESD, such as problem-based learning and inquiry-based learning, require involvement in collective dialogues or discussions among learners to develop meaning and reach appropriate solutions. Such cooperation and social influence is believed to construct new knowledge more comprehensively than knowledge constructed individually. Also, ESD strategies that are based on social interaction are believed to suit the dynamic nature of the concept of sustainability which always seeks alternatives. This understanding of how knowledge develops is in line with Vygotsky's theory that learners' development depends on collaboration with one another (Armstrong, 2011).

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3. Methodology

3.1 Context of the Study

The study is conducted in the English department under the faculty of Arts and Humanities in an Egyptian private university. Although the English department is an old department in the university, the faculty as an entity is newly established and it is still in the process of refining its vision and mission. Moreover, some of the courses are still being developed by the academics working in the English department. These conditions provide a good environment for introducing a new educational approach such as ESD because there is room for creativity and innovation. Participants in the study are faculty members teaching two advanced-level courses in the English department. These specific courses are selected because the nature of the courses and their design can allow for smooth integration of ESD, especially that the courses are given to students from different faculties (Pharmacy, Engineering, Computer science, Dentistry, Psychology, Law, Business and Mass media) which is viewed as a factor that can facilitate drawing connections with other disciplines (a core concept in ESD pedagogies). The two courses were given pseudonyms to protect the privacy of the institution. The first course is referred to as ‘debating course’ and the second is referred to as ‘Academic writing course’.

In the debating course, the focus is on developing not only students’ academic language, citation and referencing skills, but also their critical thinking skills. It is designed in a way that allows students to research a controversial topic, construct an argument and defend it in oral and written forms using appropriate evidence. The course includes engaging students in debates by dividing them into a pro-argument team and a counter-argument team. Students receive guidance throughout the course to listen, respect and be open to different views and ideas as well as to learn ways of citation and referencing. Cotton et al. (2007) concluded in their study that using debates and discussions in class provide good teaching and learning opportunities about sustainability issues which are controversial in nature. Thus, the course provides good ground for ESD infusion.

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In the Academic writing course, the main focus is on developing problem solving skills. Throughout the course, students select one of the pressing problems in society, learn how to narrow it down, analyze it, and suggest a proper solution. They are required to develop a problem analysis essay in which they highlight the causes and effects of the problem to show their deep understanding of its aspects, clarify different suggested solutions, then properly defend one of the suggested solutions in relation to others using evidence and supporting details. Similar to the first course, one of its objectives is to develop students' skills in citation and referencing. Therefore, it is believed that these advanced-level courses create good environment to explore how teachers reflect their understanding of SD in class with students.

The university addressed in this study follows a strong hierarchical structure. In this context for example, the two language courses are framed and designed by two faculty members in leading positions in the department: a senior course coordinator and a course coordinator. Both work cooperatively on deciding the objectives, planning the timeframe of the classes and offering courses material. However, approval of the final plans must be received from the Dean of the faculty who has full authority to approve or disapprove the suggested plans and request modifications. Moreover, the hierarchy continues to the top management as, in certain occasions, the head of the university has the power to influence the decision making in the department regarding the suggested plans especially when certain components in the courses touch upon sensitive political issues.

3.2 Role of the Researcher in the Study

The researcher who conducted this study developed special interest in the field of ESD in 2015. Her research interest is in ESD higher education curriculum and teacher training. Moreover, the researcher works in the same department with the participants and has the same academic position. This makes the researcher approach the study from an insider's perspective. To mitigate possible bias in the study, the researcher attempted to invite an expert in ESD teacher training from another university to deliver the workshop, but the guest apologized one week before the workshop. Two other experts from different universities were sent invitations to deliver the workshop, but they also apologized due to

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the short notice. This led the researcher to deliver the workshop by herself and continue approaching the study from an insider's perspective.

3.3 Research Design and Instruments

This study is a qualitative diagnostic case study designed to answer the three research questions: (1) what are the perceptions of faculty members in regards to SD? (2) How do faculty members perceive their expected roles as educators towards ESD? (3) How their perceptions about ESD influence their current teaching practices and the way they address academic English language courses? Firstly, a preliminary survey was conducted at the beginning of the semester to understand faculty members' perceptions of SD and ESD. Secondly, based on information collected from the survey, a professional development workshop was conducted to expand discussion about the two concepts and discuss ways of integration in the course. Finally, towards the end of the semester, a follow-up interview was conducted with participants to reflect on their in-class experiences and explore whether or not their acquired knowledge about SD and ESD influenced their teaching methods. This approach was used in the study to ensure collecting more accurate data from both the preliminary survey and the interviews as data combined from both instruments are believed to provide triangulation and can increase the credibility and trustworthiness of the results (Creswell & Miller, 2000). The researcher anticipates that conducting semi-structured, one-to-one interviews would provide an opportunity for deeper conversations with the participants about their understanding of the concepts explored in this study and the influence of the workshop.

3.4 Study Participants

The study is based on a convenient sample of 18 academics who volunteered to participate. Convenience sampling was used due to the researcher's connections and accessibility as well as the willingness and availability of participants. Out of 84 academics in the English department, 37 academics were selected because they were responsible for teaching the two language courses (see Section 3.1) addressed in this study during the Fall semester 2017 (17 academics teach the debating course and 20

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academics teach the problem-solving course), but only 18 volunteered to participate in the study. The other 47 academics teach other language courses.

The volunteers have different English language degrees. They belong to different age groups ranging from 25 to 54 years old. All the participants are females except for one male. Ten participants are hired as full-time staff while eight participants work on part-time basis; part-time staff are available on campus either two or three days per week according to the number of groups they teach. Twelve participants teach the debating course which is based on developing students' argumentation and debating skills, and six participants teach the academic writing course which involves developing problem analysis skills. The 18 academics participated in stage one of the study (questionnaire), but only 10 continued stage two (workshop) and stage three (interviews). Eight participants withdrew from the study after stage one. All academics in this study hold the same academic position except for one participant who has a senior position. She is leading one of the two courses. It is communicated in the department that academics have autonomy in choosing material and specific teaching approaches. However, in practice, there are certain boundaries set by senior faculty members and/ or top management that academics should not cross without receiving official approval.

3.5 Ethical Considerations in the Study

An Institutional Review Board (IRB) application form was submitted to get the permission to collect data from participants. IRB approval was received before the beginning of data collection (see Appendix C). Furthermore, all participants signed the IRB consent form (see Appendix D) before volunteering in the study. They also signed a consent form adapted from Massachusetts Bay Community college's website (2010) to audio-record and transcribe the interviews in the study without associating names. Only one participant expressed discomfort towards recording the interview and did not sign this form. Hence, notes were taken manually in a notebook for this participant. All transcriptions, notes and recordings are saved on the researcher's laptop with a password; therefore, no one other than the researcher can check the data collected.

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In addition, the researcher received an official approval from the Central Agency for Public Mobilization And Statistics (CAPMAS) to conduct the study in the university (see Appendix E). Moreover, before the beginning of data collection, the researcher received an official approval to conduct research on campus from the head of the English department and the Dean of the faculty of Arts and Humanities.

3.6 Procedures

The three stages of the current study are clarified in the following figure:

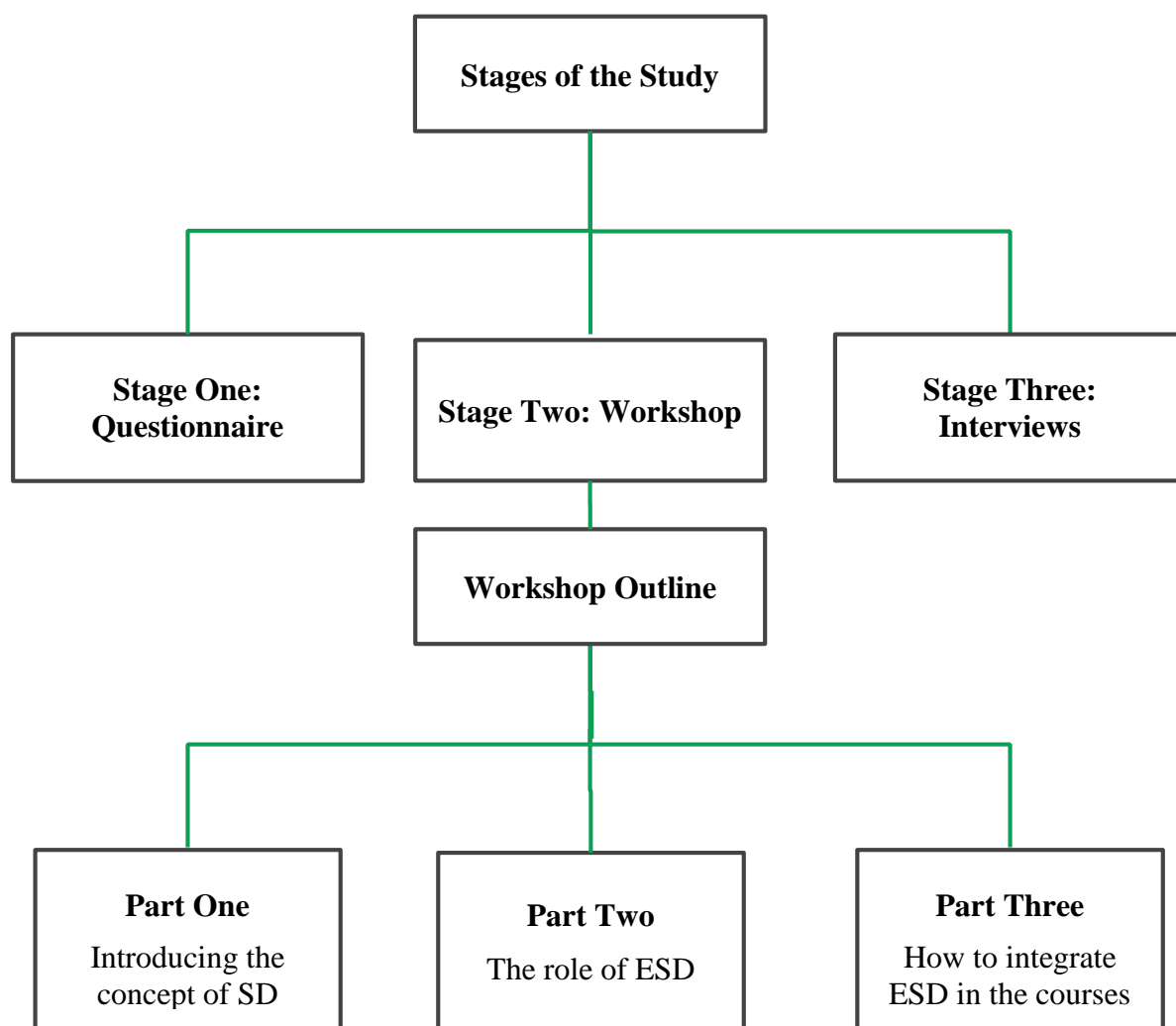


Figure 1. Stages of the study

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Details of each stage are as follows:

3.6.1 Stage one: A questionnaire at the beginning of the Fall semester.

The questionnaire contains eight items adapted from two questionnaires designed by Ambusaidi and Al Washahi (2016) and Cotton et al. (2007) to test faculty members' perceptions of SD. In the current study, questions were adapted to suit the context of this study and to be relevant to the study's research questions. For example, some of the survey questions adapted from Cotton et al. (2007) were simplified to suit the small sample size and the participants' discipline. In Cotton et al. (2007), 328 participants were faculty members from different disciplines whereas in the current study the 18 participants are from one discipline which is English language and literature.

The questionnaire consists of four closed-ended questions, three open-ended questions and one Likert scale (see Appendix A). The aim of the questionnaire is to collect information about faculty members' initial perceptions regarding the concept of SD and their perceived role as educators to implement ESD. The researcher anticipated that academics with language degrees can either have limited knowledge about the concept of SD, especially with its reference to the environmental, social and economic dimensions, or find it difficult to associate the concept to the content they teach. Therefore, data is needed from the questionnaire to either confirm/ disconfirm this prediction and, hence, facilitate the process of designing the workshop later. In other words, data collected from the questionnaire is used as the basis to prepare for stage two. The questionnaire was created using SurveyMonkey application to ease online distribution among participants. Before sending it to the study participants, the questionnaire was piloted by three respondents to make sure that all questions are clear and to check that the shared link is working properly.

The researcher met the volunteers in person to explain the purpose and procedures of the study and explained the way of responding to the questionnaire prior to distribution. The questionnaire was then distributed to faculty members who were teaching the two advanced-level courses for the Fall semester in 2017 (from September to December 2017). The distribution is done online by sending e-mails to volunteers with

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the link of the questionnaire attached. E-mails of the participants are accessible through the mailing lists specifically created for academics teaching these courses. Three reminders were sent to the participants. The researcher received online confirmations that 18 participants completed the questionnaire within 18 days. Total number of responses on each question and calculations are made automatically by SurveyMonkey. However, the researcher used Google sheets to design the graphs displayed in the analysis chapter.

3.6.2 Stage two: Professional development workshops about SD and ESD.

The content, level and design of the workshops were determined based on the initial results from the questionnaire that the researcher received online. The results (see Section 4.1) led to the following plan: the first workshop was designed as an introduction that builds on their knowledge of the concept of SD, expand discussion about its relevance to different disciplines, and address the role of educators towards ESD. The second workshop was planned to be entirely devoted for eliciting faculty members' views about possible integration of ESD in the two courses based on what faculty members could comprehend from the first workshop. This includes suggested modifications, lesson plans, controversial topics and teaching approaches to reorient the courses to address sustainability issues.

These workshops were initially planned to be given by a prominent professor in the field of ESD in cooperation with the researcher. There are several reasons for inviting a guest to deliver the workshops rather than presenting the workshop by the researcher. Firstly, for the efficiency of the workshops, there is a need for a professional who has long, hands-on experience in the area of ESD teacher training. Secondly, having a guest is important to avoid the halo effect or possible biases based on previous experiences between the researcher and the participants since they share the same workplace. However, the guest apologized one week before the workshops. The researcher contacted two other guests, but it was short notice as both had full schedules at the time set for the workshops. Therefore, the researcher had to deliver the workshop by herself.

The two workshops were planned to be delivered on campus in a meeting room that is suitable to accommodate the number of participants. It is equipped with the

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facilities needed to deliver the workshops such as a computer, a projector and internet access. The facilities are needed because the workshop included the use of Google slides as a visual aid. It also had a whiteboard in case the presenter needed to clarify specific points on the board to volunteers. The room is booked with the help of the department's coordinators who have access to the schedule that shows rooms' availability. The following are the details of the actual workshops' implementation:

3.6.2.1 Implementation of the workshops.

The workshops are scheduled to be given during the university's pre-planned blocked hours to ensure the availability of all the volunteers. This time slot is usually free from teaching activities; it is dedicated for all activities and professional development workshops either for staff or students. Participants received an e-mail with the time and venue of the workshops in addition to a motivational note that light refreshments would be served. However, 10 out of 18 participants confirmed their availability during only one of the workshops. The rest sent their apologies due to being committed to other tasks in the faculty. Consequently, this situation has led to major changes in the initial plan of the workshops. Due to time constraints and academics' limited availability, the two workshops had to be merged into one concise workshop that lasted for two hours and a half. This workshop contained a brief of all the essential parts that were supposed to be discussed in the course of two extended workshops. The content of this concise workshop was divided into three parts as follows:

3.6.2.1.1 Part one: Understanding of SD.

The first part focused on introducing the meaning and development of the concept of SD with its environmental, social and economic perspectives. It also introduced the international initiatives to promote SD worldwide. This section started with sharing the results of the first question in the survey about whether or not participants have heard of the term SD (see Section 4.1). The aim of sharing the results of this question in particular is to engage attendees in the workshop and elicit different views of the term and different sources that have introduced the term for them. Moreover, the first part of the workshop

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included a discussion about Egypt's need for SD in which all volunteers listed problems under the environmental, socio-cultural and economic dimensions of SD and acknowledged the necessity of SD in Egypt.

3.6.2.1.2 Part two: Understanding ESD.

The second part was devoted to clarify the role of Education to achieve SD goals with special focus on the United Nation's Decade of ESD. It is thought that sharing international initiatives that mobilized educational institutions for the sake of a sustainable future would encourage participants in the workshop to be part of it. In addition, a discussion about different ways of integrating SD in education was started among participants while presenting two figures showing ESD, on the one hand, as an individual discipline and, on the other hand, as a multidisciplinary subject. The figures are adopted from an ESD toolkit designed by McKeown (2002) as a manual to be used by educators to reorient education towards SD. Discussing this point was the entry to share what the literature says about ESD pedagogy and its holistic nature.

The workshop presented an ESD pedagogical framework suggested by Eilam and Trop (2010). The framework introduces features that can differentiate ESD from non-ESD. It is based on Orion's learning continuum that placed traditional or 'non-natural' learning and 'natural learning' on the two extreme ends of the continuum (as cited in Eilam & Trop, 2010). Orion uses the term non-natural learning to refer to conventional learning which happens in closed rooms with large group of learners and includes more imaginative than real-life situations. Natural learning is on the other extreme; it is claimed to be an essential element to implement ESD. Using this continuum, Eilam and Trop present four essential steps for educators: (1) traditional academic style of teaching and learning, (2) Multidisciplinary learning, (3) Multi-Dimensional learning and (4) emotional learning. Starting from non-natural learning as a first step, it is argued that each component gradually takes education one step towards natural learning and hence towards ESD.

A slide illustrating the abovementioned continuum was shown to the attendees during the workshop. In addition, the four steps are presented using a specific learning

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context adopted from Eliam and Trop (2010) as an example. In this context, water pollution is the main sustainability issue addressed in a class with a teacher and a group of students. Each step presents a scenario for how the topic is taught. The scenario builds up until step four is reached where all the steps are fully implemented. For instance, in step one, the traditional academic style, the context shows a chemistry teacher in the middle of the class talking about the causes and effects of water pollution and presenting charts on the board while students are taking notes. It is a representation of the typical learning style which takes place in many educational institutions worldwide. Step two changes the learning context completely to include a number of teachers from different disciplines planning the theme of water pollution together such as biology, chemistry, physics, economics and sociology teachers. Students in this case are taken to a lab to test the physical and chemical characteristics of water. They take a sample of water from a nearby river or pond and examine bacterial growth. Then, they discuss the economic effects of water pollution and how much it costs the country.

In step three, the two dimensions of time and space are added to the previous scenario. For example, to add the space dimension, students collect samples of water from different rivers or water sources in their city and compare the levels of pollution in each sample. To add the dimension of time, they go to the towns archive and search for historical samples of water from the same rivers and compare old to modern results. The final step adds emotional learning to all the previous steps. It stresses the importance of expressing emotions regarding all the issues covered. In this scenario, students can be engaged in debates about water pollution, create community service activities and conduct interviews with people to express their opinions about water pollution.

Examples of recent initiatives trying to implement ESD in Egypt on both school and university levels were presented to show the workshop attendees the possibility of applying the previous scenarios in Egypt. For school level, the workshop focused on EduCamp project as an example for an initiative that created toolkits based on a similar framework that adopted holistic and multidisciplinary learning. A softcopy of one of the toolkits was shown to the attendees with an example of a lesson plan. For university level, two examples were presented for universities in Egypt that prioritized SD either in

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their physical campus and/or their educational programs. The first is Heliopolis University (HU) which is claimed to be based on SD principles, and the second is the American University in Cairo (AUC). However, no specific educational program or pedagogy was shared due to lack of information about how programs are applied in the two universities. The aim of sharing the previous examples is to show academics that some educators in Egypt are trying to implement the ideas presented and reduce their initial feelings that ESD pedagogies are far-fetched.

3.6.2.1.3 Part three: ESD relevance to the targeted courses.

The third part of the workshop was devoted to drawing connections between ESD and the two courses that the participants teach. Firstly, results of the fourth question in the survey about relevance of SD to their courses were shared with the participants to initiate a discussion about possible ways to integrate ESD in the courses (see Section 4.1). Participants then were asked to list topics they have recently discussed with students in the modules either for oral debates, argumentative essays or for problem analysis essays and share their experiences in class about how they approached such topics. A discussion was also initiated about what can be added or modified in their approaches to make students include further considerations for the environment, society and economy and make the course more holistic in nature or closer to the model presented about natural learning on the learning style continuum.

The workshop was concluded with a summary of the main points and a recommendation to start developing ESD programs and adjusting the approaches of teaching the language courses that the participants teach. Moreover, it was emphasized that even poor implementation of ESD is a step towards ESD because it will lead to future refinements. More details about the attendees' remarks during the workshop are mentioned in Chapter 4, the Results.

3.6.3 Stage three: Follow-up interviews.

The researcher arranged semi-structured individual interviews with the participants five weeks after the workshop. Interviews were arranged in a convenient

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place, on campus and off campus, upon agreement with participants. The aim of the interview was to explore the impact of the workshop on the participants' teaching practices and to explore whether or not the workshop had a long-lasting effect in the minds of the participants. During the interviews, the researcher asked reflective questions adapted from Cotton, Bailey, Warren and Bissell (2009) on whether or not their perceptions of SD changed after the workshop, and whether or not their approach to the course was affected/ will be affected in the future. Questions also addressed the challenges faculty members faced during their attempts to apply the suggestions mentioned in the workshop (see Appendix B). As mentioned previously, interviews were recorded upon the consent of the participants; however, one interview was noted down as the participant did not approve the recoding.

The selection of individual interviews, rather than group interviews or focus groups, is made for several reasons. Firstly, faculty members in the department have different schedules; some of them are hired on part-time basis and they are available on campus for only two or three working days. In addition, interviews are planned to be conducted towards the end of the semester which is a very hectic period for academics as they are busy correcting assignments, administering tests and finishing course objectives; it would be difficult to find a free slot suitable for all group members. Secondly, one-to-one interviews is expected to provide the researcher with more accurate data because interviewees will have more freedom to express themselves without being affected by group pressure which is stated among the weaknesses of group interviews (Morgan, 1996). In a topic such as ESD where there is no one correct definition or interpretation to how it should be applied, participants in a group discussion may get the feeling that they have to conform to what others say in the group. Therefore, it is believed that arranging for individual interviews allows for both feasibility and accuracy of data collection.

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4. Results

This chapter includes the analysis of the data collected throughout the study. Each of the three stages in the study is mentioned followed by data collected during this stage.

4.1 Questionnaire Results

Eighteen participants completed the questionnaire (see Appendix A). Codes and details about participants are mentioned in the following table:

Table 1

Respondents' Information

Code	Age group	Gender
Respondent 1 (R1)	25-34	Female
Respondent 2 (R2)	25-34	Female
Respondent 3 (R3)	25-34	Female
Respondent 4 (R4)	35-44	Female
Respondent 5 (R5)	35-44	Female
Respondent 6 (R6)	25-34	Female
Respondent 7 (R7)	35-44	Female
Respondent 8 (R8)	25-34	Female

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Respondent 9 (R9)	25-34	Female
Respondent 10 (R10)	35-44	Female
Respondent 11 (R11)	45-55	Male
Respondent 12 (R12)	25-34	Female
Respondent 13 (R13)	35-44	Female
Respondent 14 (R14)	25-34	Female
Respondent 15 (R15)	25-34	Female
Respondent 16 (R16)	25-34	Female
Respondent 17 (R17)	25-34	Female
Respondent 18 (R18)	35-44	Female

Question one (Q1) inquired about the participants' familiarity with the term SD and whether or not they have heard the term before. Eight of them reported having heard the term SD before (R2, R5, R7, R10, R11, R12, R13, R15), six reported never hearing of SD (R1, R3, R4, R6, R9, R16) and Four reported being familiar with the term but they were not sure of its meaning (R8, R14, R17, R18). The previous responses refer to a total of 10 participants with either no clear meaning for the concept of SD or never heard the term in the first place. The number was an indication to design the workshop at an introductory level; it indicated that the participants needed to be introduced first to what SD is, how the concept was developed and how education plays a role in achieving it.

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In Q2, respondents who have heard the term SD before were asked to specify the source that introduced them to SD. They were given space in the questionnaire to type their responses. They stated that sources were either TV/social media, a co-worker interested in the field, a newspaper, AUC publications or online journals. In addition, hearing the term SD on TV was during a speech announcing the new strategic plan for the Egyptian government till 2030.

In Q3, when asked about issues that SD as a concept probably covers, 16 participants (all except for R9 and R10) selected one or more environmental issue. The selection of environmental issues was more than the social and economic issues. Top selections included the following: protecting natural resources (14 selections), waste management (13 selections), renewable energy (13 selections) and controlling climate change (12 selections). In addition, the social issues were the second most frequently selected. Under the social dimension, 13 participants (all except for R8, R12, R14, R15, R16) selected one or more social issue such as protecting future generations which took most of the responses (11 selections) followed by ending extreme poverty (6 selections), cultural diversity (2 selections) and finally gender equity (1 selection). Moreover, participants were given space to add their own suggestions about SD issues after the above-mentioned issues. One participant (R11) added two more issues that are not suggested in the questionnaire but can be included under the social dimension: “developing labor forces and enabling all social sectors including those of special needs”. The five participants who did not include any social dimension among their selections are all females under the age group 25-34. As for the economic dimension, 10 participants chose one or more economic dilemma as areas that SD covers (R2, R3, R5, R6, R7, R10, R11, R13, R14, R17). Increasing economic growth was on top (8 selections) followed by human population growth (7 selections). None of the participants included limiting economic growth as an issue tackled in SD. Figure 2 illustrates the responses.

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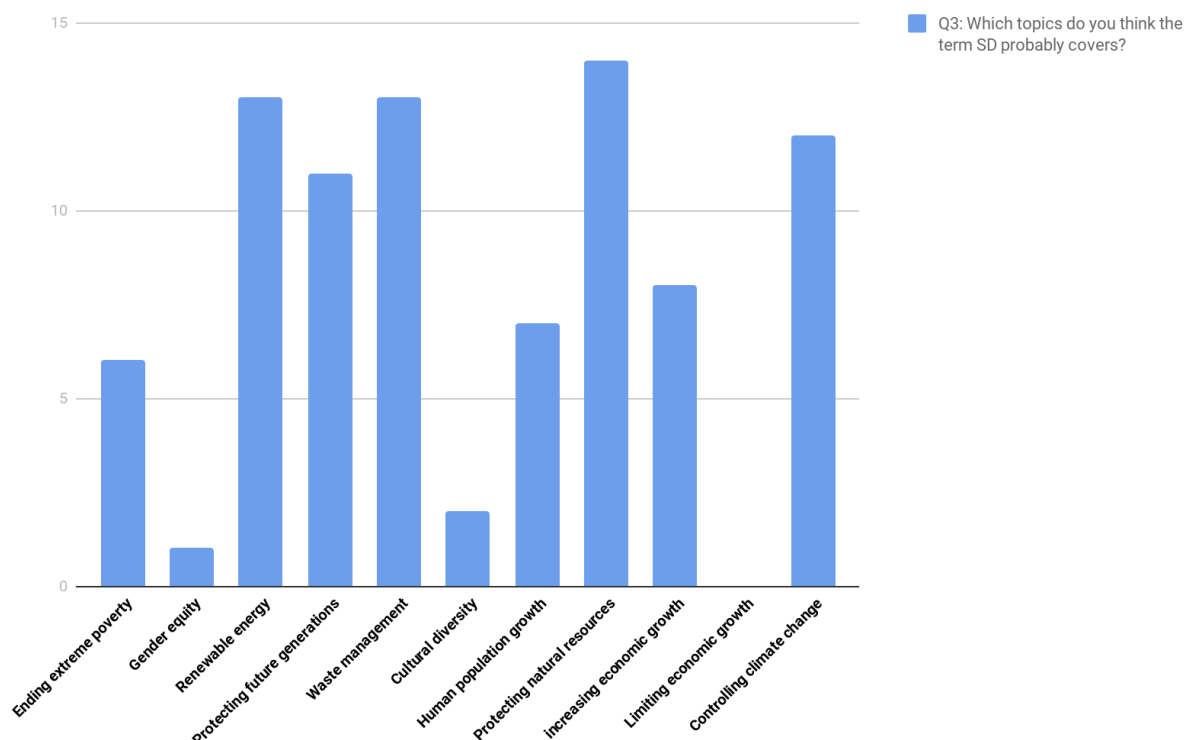


Figure 2. Issues that SD covers

Q4 inquired about the degree of relevance of SD to the courses that participants teach. On the one hand, six out of 18 think that SD is highly relevant to the course they teach (R2, R5, R9, R10, R11, R12) while seven answered that it is partially relevant (R1, R4, R6, R7, R8, R14, R15). On the other hand, five participants responded that SD is irrelevant to their courses (R3, R13, R16, R17, R18). All of them, except for R3, teach the advanced writing course in which students learn how to develop problem-solving skills, write problem analysis essay and write in an academic style.

In Q5, participants who answered with some degree of relevance were asked to report specific areas where their courses meet areas in SD. They reported different parts in the courses where SD can be relevant such as “debates, reading articles and argumentative writings” (R5). In addition, they referred to the nature of the courses- such as “teaching critical thinking”, “promoting the students’ ability to solve problems” (R2) and “independent learning” (R9) - as what connects the courses to SD.

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Participants who reported that the concept of SD is irrelevant to their courses mentioned that it is more related to “practical fields like engineering” (R18), “environmental studies”, “renewable energy studies” (R13) and “social studies and sciences” (R3). Also, one participant mentioned that SD can be associated with humanities and literary studies through the field of “ecocriticism” (R16) which is an approach in literature that studies the depiction of environmental issues in literary works. None of the participants think that SD is highly irrelevant to their courses (see Figure 3 for the responses).

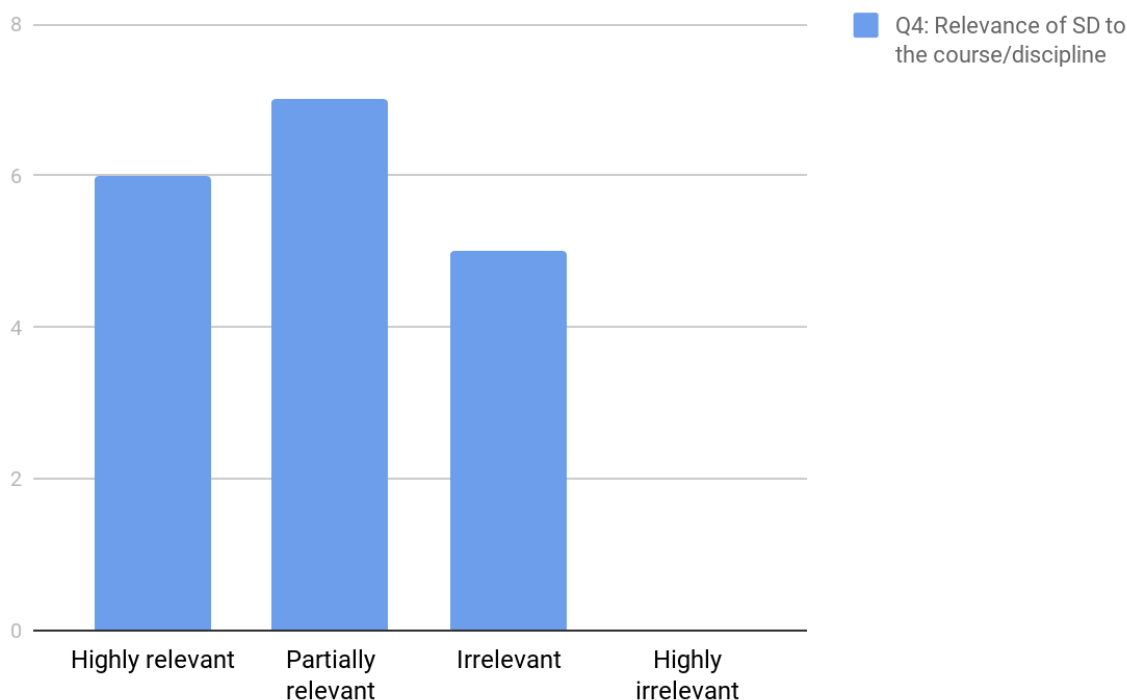


Figure 3. Relevance of SD to the course/discipline

4.2 Workshop Findings

As previously mentioned, data from the questionnaire were used to design the workshop to suite the level of knowledge of the participants. This section provides some details about participants' discussions during the workshop. In part one of the workshop, some of the attendees highlighted that they recognized the term SD from TV and social

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media when the Egyptian government declared the Sustainable Development Strategy (SDS) as a vision for the country until 2030; it is a declaration that adopted the global development agenda launched in 2015 by the UN in which SD goals were announced. However, they expressed confusion over the meaning of the term SD. Other attendees said that they do not know about SDS in the first place.

In Part two, when the researcher shared the two figures from Mackeown's ESD toolkit (2002) which showed ESD either as an individual discipline or as a multidisciplinary subject, all participants agreed that the figure representing ESD as a multidisciplinary subject would be more effective to implement than the figure showing ESD as a separate discipline. However, after sharing the ESD pedagogical framework suggested by Eliam and Trop (2010) which presented four steps (traditional style of teaching and learning, multidisciplinary learning, multi-dimensional learning and emotional learning) to apply ESD in its multidisciplinary form (see Section 3.6.2.1.2), participants shared their views about the four steps. The majority thought that the steps from two to three are unrealistic and inapplicable, especially in Egypt. Others expressed their concerns about the level of cooperation required from academics teaching in different disciplines. They believed that this level of cooperation is difficult to achieve.

As for Part three in the workshop, participants started to connect between the three dimensions of ESD (environmental, social and economic) and the courses they teach. They listed problems and debatable issues that they tackle in class with the students such as slums, compounds/ gated communities, water shortage, nuclear energy and traffic accidents in Egypt. There was an agreement among the participants that when students tackle such debatable issues or suggest solutions to these problems, they rarely consider the interconnections between social, environmental and economic perspectives. They also highlighted that students' writings or debates about environmental problems in particular tend to be highly superficial. Analysis of the problems seems to be memorized and suggested solutions are either impractical, quick or ready-made. One participant highlighted that when her students are left to choose debatable topics, they usually choose topics that are less political such as cosmetic surgery.

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When discussing how ESD approaches tackled in the workshop can be applied in the courses they teach, some participants suggested cooperating with faculty members in other departments to integrate ESD and develop plans that would take the courses at least one step towards the presented ESD pedagogical framework. However, they were full of doubts because of lack of communication and complete isolation between departments. Others suggested drawing students' attention to the inter-relations between social, economic and environmental dimensions during class discussions, but they were concerned about prescribing opinions to students or indoctrinating them, especially because the courses are based on critical thinking.

4.3 Interview Results

The interviews were conducted with ten participants. They were the ones who managed to complete the three stages of the study (respond to the questionnaire, attend the workshop and do the interview). To code the participants, each interviewee was given a number according to their turn in the interview. For example, the first participant to attend the interview was given the code Interviewee 1 (I1). Coding is used to protect the confidentiality of the interviewees' data as per the consent form they signed at the beginning of the study (see Section 3.5 for ethical considerations in the study). The following is a table to clarify details about the interviewees including which of the two courses (debating or problem solving) they are teaching:

Table 2

Interviewees Codes and details

Code of the interviewee	Age	Gender	Teaching experience	Academic degree	Course
Interviewee 1 (I1)	29	Female	7 years	MA in English literature/ Novel and criticism	Debating
Interviewee 2 (I2)	32	Female	10 years	MA in English literature/	Problem-

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				Drama and performance studies	solving
Interviewee 3 (I3)	30	Female	5 years	MA in English Literature/Novel and literary translation	Problem-solving
Interviewee 4 (I4)	38	Female	14 years	MA in linguistics/ critical discourse analysis	Problem-solving
Interviewee 5 (I5)	35	Female	11 years	PhD in literature/ Novel	Problem-solving
Interviewee 6 (I6)	29	Female	8 years	MA in English literature/ Poetry	Problem-solving
Interviewee 7 (I7)	35-44	Female	20 years	BA in English literature	Debating
Interviewee 8 (I8)	35-44	Female	17 years	Ph.D in English literature/ MA in Teaching English as a Foreign Language (TEFL)	Debating
Interviewee 9 (I9)	30	Female	12 years	MA in TEFL	Debating
Interviewee 10 (I10)	37	Female	12 years	MA in Teaching English to Speakers of Other Languages (TESOL)	Debating

Data from the interviews were analyzed based on Creswell's suggested steps for data analysis in qualitative research (Creswell, 2009). Following the first step, interviews were conducted and transcribed in English. Transcriptions were typed and saved online

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on a google document that is accessible only by the researcher. In the second step, transcripts were read several times to understand the general sense of the responses. Parts that share similar viewpoints and/ or refer to significant issues regarding the research questions were highlighted in different colors to facilitate organizing, linking, grouping, and labeling them with specific terms as recommended by Creswell (2009). The result of the previous step is producing a list of ideas for significant segments and repeated patterns in the interviews. In this list, the researcher then searched for themes, other than the ones predetermined by the interview questions, to start the thematic analysis. As suggested by Braun and Clarke (2006), the next step was to review all the themes to decide major and sub themes using a mind map. The review and the mind map led to four major themes as follows:

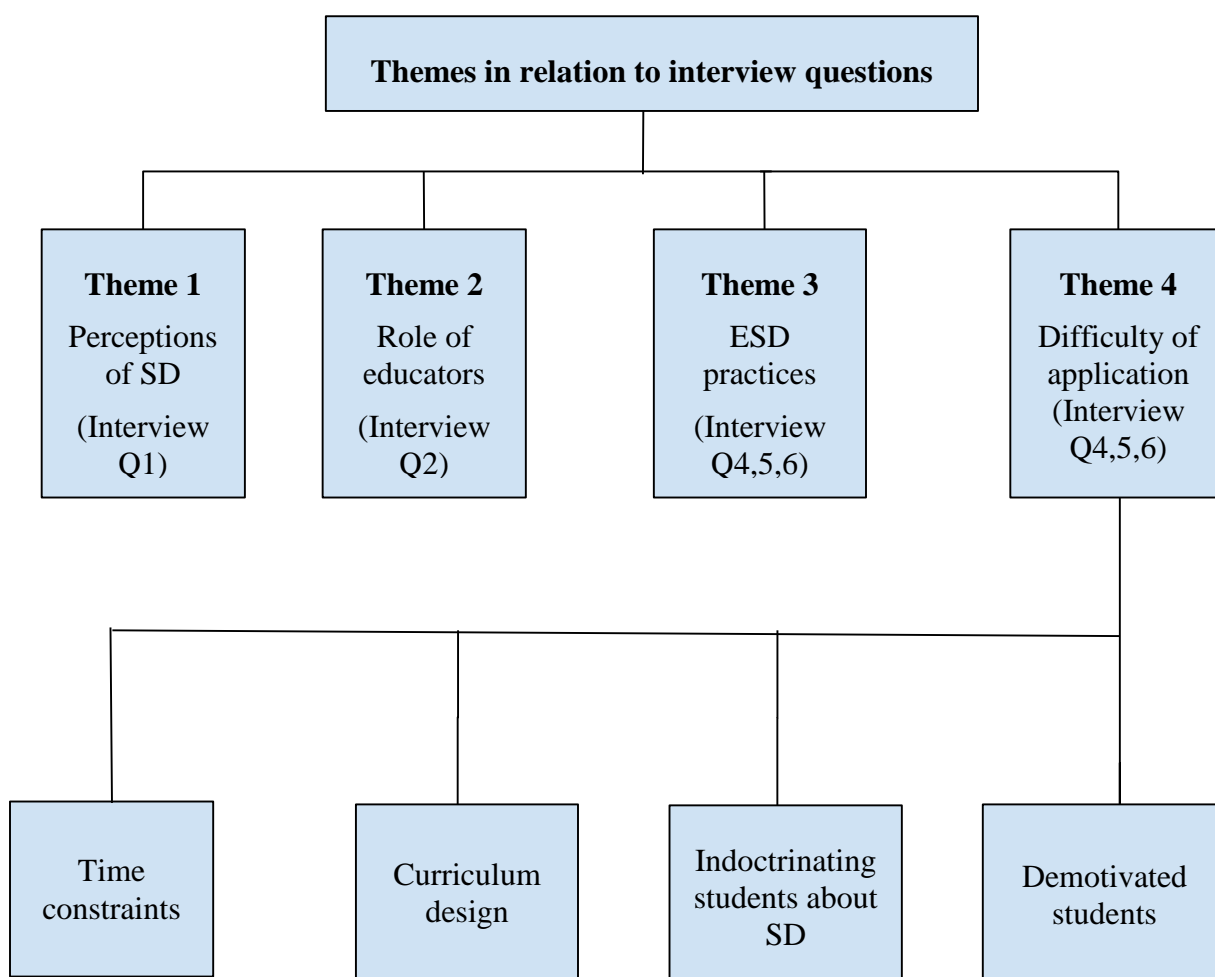


Figure 4. Themes developed from interviews

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4.3.1 Theme one: Academics' perceptions of SD.

Theme one was determined by Q1 in the interview. The question inquired about interviewees' understanding of SD after attending the workshop and whether or not their understanding changed. All interviewees reported having a clearer understanding of the concept of SD after the workshop, except for I9 whose response showed limited understanding for SD since she described it as "having something developed". The rest of the interviewees either related the concept to its very first meaning that expresses concern towards future generations, or referred to its evolved meaning with the holistic approach that includes environmental, social and economic dimensions (see Section 1.1 for the development of SD concept). The following are two extracts selected to represent responses received from interviewees about their perceptions of SD:

- "I understand that it is making everything works in the best interest of the planet and its people" (I4)."
- "SD is not only related to recycling or the environment. It has to do with every aspect of our life, resources as well as money. It has to do with planning from the very beginning. We have to plan ahead in order not to make use of all the resources and run out of resources at the end. It has to do with education, social justice... and fair distribution of wealth. It's a very big concept that has to do with everything in our life...economy, society as well as the environment. My previous understanding of the word was that it has to do with the environment and just... preserving our environment, recycling..., but I had no idea about the link between SD and the economy or the society." (I8).

4.3.2 Theme 2: Role of educators.

This theme was determined by Q2 in the interviews. In Q2, interviewees were asked about their perceived roles as educators regarding SD. At first, they all expressed that before the workshop, it was not clear to them what their role is as educators teaching academic English. However, after the workshop, responses were varied; they included, but were not limited to, (1) raising students' awareness of SD through the courses that academics teach, (2) guiding students in areas beyond their courses (3) practicing the

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values that academics preach, (4) integrating ESD into curriculum, and (5) learning more about SD before educating students. The following quotes express some of the previous perceptions:

- “I think as an educator I should be helping students to reach and understand the most important values of the society, the culture of keeping our environment safe so that we can survive. It’s part of my role. My role is not just to teach the subject.”. “I mean helping them to go through the research steps with more concern for [SD] because it involves everybody. It is not just a research topic, it is something that involves them personally and socially... and they can be involved in it somehow on the professional level later on.” (I4).
- “It needs knowledge from your side...Actually I didn’t have enough knowledge, so I need to read first, and then I need to prepare material, and then I need to prepare interesting activities to encourage [students] and so on. So it is not a matter of just picking up topics or raising the issue itself for discussion, no, I think that it is more profound and deeper than this.” (I10).

However, one of the interviewees tied educators’ role towards promoting SD to the condition that the curriculum is already designed to meet ESD pedagogies:

“I can have a role in one case only: if the curriculum is designed to serve this end, but as long as we don’t have that curriculum or... a specific plan... so I don’t think I have a vital role to do” (I1).

4.3.3 Theme 3: ESD teaching practices.

Questions 3 till Q6 were mainly concerned with whether or not the interviewees’ teaching practices changed after clarifying the concepts of SD and ESD in the workshop. All the interviewees reported that although the workshop helped them understand the concepts, their teaching practices did not change due to several reasons that will be mentioned later (see theme 4, Section 4.3.4). However, two interviewees (I2 and I6) reported that their newly acquired perceptions about SD and ESD helped them guide the discussions with their students differently. For example, I2 decided to use an example that shows how the three perspectives of SD (environmental, social and economic) are

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inextricably intertwined and should all be considered when offering a solution to a problem. The example was used during a session about writing a problem-solving essay and I2 was explaining the process of narrowing down a topic:

“I kept thinking during the workshop how can I use [ESD approach]...in my classroom with my students, especially that I’m teaching advanced writing”. “I gave them an example of [the process of] leather tanning. It is one of the very important industries in Egypt, but at the same time it causes a lot of pollution and it affects the people living in Sur Magra Al-Oyoon [a famous historic, yet poor district in Cairo] where leather tanning takes place.”. “Ironically, this area has 57357 cancer hospital [one of the biggest hospitals specialized in children’s cancer in Egypt] just around the corner.”. “The majority of workers are suffering pulmonary diseases and it is inherited through generations due to the chemicals used because the process of leather tanning involves a lot of chemicals”. “What they did is that the government built a new city called the city of leather in Al-salam City [a newly built district in the East of Cairo] so that the industry can move there to protect people in the area.” “This is a topic about pollution in Egypt but it is related to the social and economic aspects.” (I2).

Furthermore, I6 talked about a topic that students selected to write a problem analysis essay. The topic was about immigration and I6 was running a discussion with students to help them develop a focus for the topic. I6 stated the following:

“We discussed the environmental [perspective]...some students were saying that one of the reasons why people immigrate is natural disasters...so we started discussing like what kind of information you can give me about natural disasters? The tsunamis, the hurricanes and so on; they are all connected to global warming... this is not an aspect that we naturally talked about before I actually was aware of the fact that I can incorporate this” (I6)

As for the rest of the interviewees, their responses unfolded a number of barriers that can hinder the implementation of ESD. These barriers are discussed as sub themes under the following major theme:

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4.3.4 Theme 4: Difficulties of applying ESD approach.

In spite of expressing interest in applying ESD pedagogy, interviewees were concerned about its applicability in their context either because of time constraints, difficulties in designing curriculum that meets ESD, demotivated students or concerns about indoctrinating students when promoting SD. Each of the previous barriers is discussed as a sub-theme.

4.3.4.1 Time constraints.

All interviewees mentioned limitation of time as a major factor for not being able to change their teaching practices based on what they acquired during the workshop. On the one hand, they needed time after the workshop to reconsider their teaching plans and prepare materials; on the other hand, they stated that the courses allocated more time for delivering specific course objectives than time to apply holistic, student-centered approaches. The following response illustrates such challenge:

“We teach synthesis and in-text citation. This is mainly what we do in advanced writing. The time allocated to presentations for instance or interaction or brainstorming of the topic is not as much as time allocated to the very dry materials such as the synthesis.” (I6).

It is true that ESD pedagogical practices require ample of time to be planned and implemented.

4.3.4.2 Difficulties in curriculum design.

Some interviewees highlighted the point of curriculum design as one of the concerns that they had in mind regarding implementing ESD pedagogies (I1, I6, I8). In their responses, they inquired about who is authorized to design curriculum that implements ESD, what is the role of the university management and whether it should follow top-down or bottom-up strategies. However, there was an implied agreement among interviewees that a top-down approach is needed to implement ESD; the following example clarifies this point:

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“What are the procedures? What could be a plan to actually convince the administration, the managers in the university and the dean of how important [ESD] is and how we should take students to apply things outside [the campus]?”
(I6)

In addition, it was pointed out by I8 that cooperation with other faculties in curriculum design is crucial for successful implementation of ESD. However, such cooperation was seen as difficult to achieve due to the highly specialized and separated nature of different faculties in the university. The researcher believes that this point raised by the interviewees about power and authority is crucial because it would directly influence all future attempts of educational change or reform.

4.3.4.3 Demotivated students.

Four interviewees (I2, I3, I8 and I10) mentioned demotivated students as a barrier; this barrier made it difficult to make changes in their courses based on their knowledge about ESD from the workshop. They specified signs of demotivation such as students' low attendance rate, doing the minimum requirements of the courses and striving for grades rather than learning. The following is an example of how I10 feels when she tries to change her teaching practices with demotivated students:

“I have very frustrating classes...this is a big problem... You prepare, spend some time searching for resources and topics and then...you go and either find three or four students coming to attend...or they are not interested in what you are saying. This frustrates me. Some people fight and keep talking...you are interested or not...I don't care...I have to say what I'm here to say... no... I'm a person who loves interaction...If you don't interact with me...I'm not going to be able to give you what I have” (I10)

Another point that was raised by I2 regarding students' lack of motivation is students' common reaction about environmental topics. They tend to be less interested in environmental topics than others; the same point was also raised collectively in

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discussions during the workshop (see Section 3.6.2.1.3 in the workshop implementation). The following quote is for illustration:

“Usually, when I tell them about these topics like global warming or pollution...they feel like ‘yeah, it’s the same old story’ ...they used to tackle topics about pollution superficially and without relating it to our lives because they feel detached” (I2).

This feeling of lack of interest can be a factor that drives academics who teach the courses to avoid including the environmental perspective in their discussions, or not to consider it as a top priority in their selections of material.

4.3.4.4 Concerns about indoctrinating students.

One last concern revealed during the interviews is the fear that applying ESD approach in courses that highly encourage critical thinking can lead, even unintentionally, to indoctrinating students. In Q4, when interviewees were asked about whether or not the workshop has changed the way they guide students’ debates, the responses were mostly denying interference in what students think. The following quote is an example:

“The debates are run by the students. I don’t interfere, but may be directing students to the ideas or the resources... But we don’t interfere with the debates; it’s totally the students’ work” (I8).

Even interviewees who reported that they felt responsible to raise students’ awareness of how environmental, social and economic issues are interconnected mentioned that this should be done implicitly.

4.4 Responding to Research Questions

The previous themes from the interviews provided response to the research questions. Table 3 shows each research question in relation to the previously mentioned themes and sub themes:

Table 3

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Themes responding to research questions

Research questions (RQ)	Responding themes
RQ1: What are the perceptions of faculty members in regards to SD?	Theme 1: Academic perceptions of SD
RQ2: How do faculty members perceive their expected roles as educators towards ESD?	Theme 2: Role of educators
RQ3: How their perceptions about ESD influence their current teaching practices and the way they address the English language courses?	Theme 3: ESD teaching practices Theme 4: Difficulties of applying ESD approach

In the following chapter, discussion about each research question is provided and interpretations of the findings are given with support from literature.

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5. Discussion and Conclusion

This section includes interpretation of the data reported in the previous chapter through incorporating the related literature. Interpretations are done by drawing connections between the results presented in Chapter 4 and the literature reviewed in Chapter 2. Answers to the research questions are provided in light of the themes developed from data collected and analyzed throughout the study. At the end of this chapter, research limitations are mentioned and recommendations for future research are offered.

5.1 Discussion of the findings to RQ1: What are the perceptions of faculty members in regards to SD?

Theme 1: Academic perceptions of SD.

Analyses of both the questionnaire and the interviews show that academics' perceptions of SD have changed after attending the workshop. In the survey at the beginning of the study, ten participants either reported that SD is a term that they never heard of, or a term that sounds familiar, but they were not sure of its meaning. Moreover, the majority of participants' selections of SD issues (16 selections) mainly focused on the environmental perspective of the concept. However, after attending the workshop, participants were able to articulate the concept of SD in a way that showed integration of the environmental, social and economic perspectives; their answers also showed concern towards the future of coming generations. The researcher believes that reaching this point where participants share a common understanding of SD's meaning is a positive step because, in the literature, one of the obstacles of embedding ESD in the curricula of different disciplines is academics' lack of comprehension for the meaning of SD (Cotton et al., 2007; Coral, 2009; Hopkinson & James, 2010). In addition, having a shared meaning of SD is important especially in Egypt where there is a general lack of awareness about SD literacy as argued by El-Awamri (2015), Biasutti et al. (2018) and EL-Deghaidy (2012). Also, the examples illustrated in Section 2.4 regarding different initiatives to implement ESD in higher education had all started the initiatives with

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exploring the perceptions of their faculty members of SD before actually starting the process of implementation. The studies reported in Section 2.4 found similar results in terms of lack of clear understanding of SD among university educators or a focus on its environmental perspective. A particular study conducted in Egypt also reported that even when SD is mentioned in the curriculum, it is understood from an environmental perspective only (EL-Deghaidy, 2012). This probably indicates that creating a shared understanding of the concept of SD is a first step towards facilitating the process of embedding ESD. The researcher believes that the workshop helped the participants take this step and develop clearer and shared understanding of SD.

5.2 Discussion of the findings to RQ2: How do faculty members perceive their expected roles as educators towards ESD?

Theme 2: Role of educators.

Although participants' responses in the questionnaire showed that they generally perceive SD issues as either highly relevant, partially relevant or irrelevant to their courses, their comments during the interviews revealed that they could not identify such roles before the workshop. Analysis of the interview data showed that the workshop helped participants to perceive the roles they can play to implement ESD in academic writing courses, both the problem-solving and the debating courses. Since participants' educational backgrounds are all in English language and literature, this conclusion was expected. According to Hopkinson and James (2010), it is easier to engage academics teaching in humanities and social sciences in ESD than academics in the scientific field because the ethics and values that shape the nature of SD are similar to those tackled in humanities and social sciences. Another reason is that the two courses explored in this study are already based on some of the essence of problem-solving pedagogy, a highly recommended pedagogy for ESD, so it was not difficult for participants to perceive their roles in ESD and develop a sense of social responsibility towards ESD. The main challenge participants reported was the way to fulfill such role.

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5.3 Discussion of the findings to RQ3: How their perceptions about ESD influence their current teaching practices and the way they address the English language courses?

Theme 3: ESD teaching practices.

Data from the interviews showed that although the workshop helped the participants to develop clearer understanding for SD and ESD, it was not effective in helping them change their teaching practices or address the courses differently. Even the two attempts that were mentioned in the analysis (I6 and I2) to incorporate some examples of the links between the three dimensions of SD during class discussions were limited and might be insufficient to bring change to students' learning experiences. The researcher attributes this result to the fact that the workshop was the participants' first encounter with SD and ESD concepts in detail, so they might take longer time to recognize and fully understand what needs to be done to incorporate ESD. As suggested by Reid and Petocz (2006), unlike educators with background in environmental studies, educators in other disciplines might not be familiar with the language used in SD and its high level of integration of ideas as their perceptions about SD and ESD are relatively new. Therefore, as explained by Reid and Petocz (2006), a second phase for academics from other different disciplines is to be engaged in projects with the aim of developing curriculum based on SD before change in the teaching practices can take place. Similar conclusions were found in other ESD teacher training research such as the research conducted by Sewilam et al. (2015) in which the authors reported that change in educational practices is usually slow and may take years to be effectively achieved. Furthermore, based on Vygotsky's sociocultural theoretical perspective, the process of transforming behavior is prolonged because it requires internalizing the new behavior that was learned through social interaction, leading to a form of cognitive development, which is a very complicated process (Shabani, 2016). Other reasons mentioned by participants are discussed under the following theme.

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Theme 4: Difficulties of applying ESD approach.

Data collected during interviews showed participants' feeling that applying ESD approach is quite challenging for the following reasons:

Time constraints.

According to the interview findings, time constraints was a major factor in impeding change in teaching practices. The time left for participants to plan for applying some of the ideas suggested in the workshop was also insufficient. Therefore, teachers continued addressing the courses in the common ways that they are used to. Although allowing ample of time does not necessarily lead to change in practices, the researcher believes that it could have helped participants to think about, create and share examples of ESD practices related to their courses. According to Borg, Gericke, Höglund and Bergman (2012), one of the obstacles that is frequently reported by teachers when trying to implement ESD is lack of “inspiring examples of how to include SD in their teaching” (p.185), so participants needed extra time to discuss several examples. In the previously mentioned study by Biasutti et al. (2018), academics who volunteered in the training attended three workshops about ESD integration in curriculum even though they already had previous experiences in ESD (see Section 2.4 for further details). Moreover, as mentioned in Section 5.1.3, theme 3, the need to internalize newly learned behaviour to achieve transformation is a long process and “social interactions, or collaborative engagement in activities, that cease before internalization occurs may not contribute to development” (Shabani, 2016, p.3).

Difficulties in curriculum design.

Based on analysis of the interviews, participants implied that a top-down approach is needed to redesign curriculum that meets ESD. Some academics in this study believe that they can successfully apply ESD pedagogical practices in their courses only when the university's upper management is having ESD in its agenda. This conclusion is widely supported by literature. According to Biasutti et al. (2018), it is mandatory to accompany ESD academic training with change in the policies of the institution. This is

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because the extent to which academics can prepare to infuse ESD in their teaching is determined not only by the awareness of the individuals, but also by the level of attention that the top-management of the institution have towards ESD. The authors also stress that this kind of change in policies is important to ensure long-term implementation of ESD. A similar argument is supported by Evans et al. (2016) who confirmed that embedding ESD in isolation from the policies, philosophies and systems running the institution would not lead to the required transformation.

However, Cotton et al. (2009) encountered the same dilemma between top-down and bottom-up approaches when interviewing academics. The authors explained in their research that even though academics feel that implementing ESD should be the responsibility of the top-management, some academics expressed their concerns about a top-down approach because it might threaten the sense of autonomy which is the essence of higher education. The authors added that a top-down approach might meet resistance from academics as they would feel that ESD is an imposed agenda.

The two opposite views about the responsibility of changing to ESD curriculum can lead to the following conclusion: it is important to achieve balance between top-down and bottom-up approaches. Real change in the curriculum would be possible if initiatives were implemented from both directions. However, the case in Egypt is sensitive because decision making in Egyptian institutions mostly follow a strong top-down approach due to the long period of centralization of most of the fields in Egypt, including education (Mayfield, 1996 as cited in Emira, 2010). Therefore, change is expected to be implemented, or at least approved, from the top authorities as per the Egyptian social norms. Autonomy is limited and even less expected from academics in the Egyptian context.

Demotivated students.

Data from the interviews showed that some academics view ESD pedagogies as difficult to apply when having demotivated students. However, this might contradict the findings in other studies which reported increase in students' motivation when academics adopted ESD approach in teaching (Biasutti et al., 2018; Ter Horst & Pearce, 2010). This

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increased motivation among students is due to the fact that ESD approaches always seek to involve students' in real life problems and make them handle the responsibility of finding a solution. In the study conducted by Ter Horst and Pearce (2010), the authors stated that when students contributed to the development of the German language page on Appropedia "they felt more motivated to learn German [...] and referenced their contributions to an international community as a factor that increased their motivation" (p.367) (see Section 2.6 for further details). Therefore, the researcher believes that academics need to change their perspective of viewing ESD from 'a difficult approach to implement due to students' lack of motivation' to 'a possible solution to increase students' motivation and create more positive learning environment'.

Concerns about indoctrinating students.

Interview data also revealed some of the participants' concerns regarding educating students with an ESD approach in courses with critical thinking skills in their core. Participants fear that they might find themselves unintentionally indoctrinating students about SD. This issue was highlighted by Qablan, Al-Ruz, Khasawneh, & Al-Omari (2009) when they referred to the likelihood of some environmental educators- since ESD is an evolved form of environmental education- to "proselytize on behalf of their subject" (p.402); this can be done by either insufficient consideration to scientific evidence or by pure indoctrination. However, Qablan et al. (2009) state that most of the environmental educators claim that indoctrination can be avoided because the role of ESD is mainly to prepare students to become citizens who are capable of making the best possible decisions to preserve the resources and challenge other unsustainable practices. This may indicate that students still have to decide on their own which practices are categorized as sustainable or unsustainable without any form of imposition.

Although some researchers agree that ESD is "unavoidably political" (Orr as cited in Qablan et al., 2009, p.402), the findings in the study by Qablan et al. (2009) show that educators in Jordanian universities prefer to avoid indoctrinating students about sustainability by exposing them to different perspectives and opinions about sustainability issues, then allowing students to formulate their own understandings and

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decisions. In an interview conducted by Qablan et al. (2009) with a professor in environmental science, the professor explains that when discussing an environmental problem with students, he does not try to urge them to state the solution in his mind, but rather provide them with tools to search for their own solutions. The researcher believes that a similar strategy can be adopted in the academic writing courses addressed in this study since they are based on debates and problem-solving skills which usually include tackling controversial or problematic issues from different perspectives. However, following such strategy does not necessarily guarantee that indoctrination will not happen in class because, as stated by Qablan et al. (2009), teachers can have certain beliefs, but act in contradiction to their beliefs in classrooms. The reasons might be lack of examples of appropriate pedagogy, and/or long-held perceptions about the process of teaching and how it is done. To address this contradiction, teachers need to challenge and reflect on their old perceptions so they can be ready to adopt new practices (Qablan et al., 2009).

In spite of the previous difficulties that hindered change in academics' teaching practices in this study, the researcher believes that overcoming each difficulty is possible through further research in the area of embedding ESD.

5.4 Limitations of the Study

The following points illustrate the main limitations in this study that might have influenced the findings:

- The sample used in this study is a convenient, small-sized sample which may not be representative. It is also taken from only one university in Egypt. In addition, some participants withdrew and could not complete all the three stages of the study, so the sample ended up with a gender-homogeneous group of females. These factors limit the generalizability of the results
- The researcher conducted both the workshop and the interviews. This can be a factor that increased bias in the analysis of the findings.

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- The researcher works in the same department with the participants which might have affected the objectivity of the participants' responses, especially during the one-to-one interviews.
- The study was conducted on a departmental level in one faculty, and it addressed two courses only. Other departments and faculties need to be involved in the study with their courses if the aim is to follow an inter/cross-disciplinary approach to make the curriculum more holistic.
- The time allocated to plan and schedule the workshop was limited which led to a fewer number of participants attending the workshop. Also, time constraints led to merging the two extended workshops into only one concise workshop - contrary to the initial plan of the study due to participants' loaded schedule. The researcher believes that this deviation from the original plan of the study has reduced the time available for deep discussions about examples and possible changes in pedagogical practices to meet ESD. This was not enough to enrich the discussions among academics or dig deeper into implementation of ESD in their courses.

5.5 Recommendations

The methods used in this study can be adapted in future research but with consideration to the limitations mentioned above. In order to increase the levels of ESD pedagogical knowledge and practice, there is need for further training for educators in different disciplines. To ensure the effectiveness of the training, future researchers need to consider many factors before planning the training sessions. First, more consideration for time is needed when scheduling workshops for academics. A suitable time frame needs to be selected so that academics can have enough time to register ESD pedagogical ideas and grasp how to take them into classes. Second, workshops should include cooperation between academics from various disciplines so that the idea of inter/ cross-disciplinary can be effectively implemented. In addition, to increase accuracy of the results and reduce possible bias, it is recommended that interviews and/or workshops be conducted by an external researcher who is not affiliated to the university under investigation. Third, there is need to adopt a specific model for ESD teacher training; a

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model can be developed such as the one suggested by Biasutti et al. (2018) which worked on three levels of ESD teacher competence: (1) a personal level, (2) a professional level and (3) an interpersonal level. Adopting a model that incorporates all these dimensions in the training might lead to more profound results. Fourth, continuous follow-up with academics who received any form of training in ESD is essential in order to evaluate the impact of the training on teaching practices and ensure that academics are receiving the support they need. Therefore, a longitudinal study might be more effective in capturing change in academics ESD perceptions and practices. Lastly, it is recommended that senior academics and people at the top hierarchy of the higher education institutions need to be included in future development workshops since they have the power to implement changes in curriculum and pedagogy.

5.6 Conclusion

This study explored academics' perceptions about SD and ESD, their role as educators towards promoting ESD and whether or not their perceptions influenced the way they address their courses. Results showed that a development workshop helped academics to better understand the concepts with their concern over future generations as well as their interrelated environmental, social and economic perspectives. In addition, results indicated that their perceived roles as educators towards ESD became clearer. However, the workshop did not help the academics in changing their teaching approaches to meet ESD due to several reasons such as time constraints, difficulties of adopting ESD approach, demotivated students and the fear of indoctrinating students.

5.7 Suggestions for future research

In higher education, more in-depth research is needed in the area of exploring academics' perceptions of ESD. In Egypt specifically, the concept of ESD needs to be introduced to academics before exploring/ evaluating ESD pedagogical practices. In addition, for better implementation of ESD in universities, more joint-research projects between different disciplines are required with special focus on interdisciplinary in higher education. This may ensure that reorienting curriculum towards ESD is inclusive of all

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the university's academic schools/departments. Another suggestion is to conduct a comparative study between Egyptian universities with a seemingly strong or clear SD agenda to explore different methods of putting this agenda into practice. Furthermore, future research can explore the relationship between ESD and indoctrination of students with regards to the political context in Egypt.

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PERCEPTIONS ON EDUCATION FOR SUSTAINABLE DEVELOPMENT

Appendix A: Questionnaire

1. Have you ever heard about the term Sustainable development (SD) or Sustainability?
 - ☐ Yes
 - ☐ No
 - ☐ It sounds familiar, but I am not sure
2. If yes, please specify the source that first introduced the term for you. For example, TV, newspaper, university lecture, etc. (You can mention more than one):
 - ☐
3. Which topics do you think the term sustainable development (SD) probably covers? (You can choose more than one answer)
 - ☐ Ending extreme poverty
 - ☐ Gender equity
 - ☐ Renewable energy
 - ☐ Protecting future generations
 - ☐ Waste management
 - ☐ Cultural diversity
 - ☐ Human population growth
 - ☐ Protecting natural resources
 - ☐ Increasing economic growth
 - ☐ Limiting economic growth
 - ☐ Controlling climate change
 - ☐ Others. Please specify.....
4. Based on your selections in question 3, how much do you think the term sustainable development is relevant/ irrelevant to the course/ discipline you teach?
 - ☐ Highly relevant
 - ☐ Partially relevant
 - ☐ Irrelevant
 - ☐ Highly irrelevant

PERCEPTIONS ON EDUCATION FOR SUSTAINABLE DEVELOPMENT

5. If your answer in question 4 is some degree of **relevance**, please specify which part in the course is relevant to your understanding of SD.

○

6. If your answer in question 4 is some degree of **irrelevance**, please specify which field/ course/ discipline do you think is relevant to SD.

○

Age group:

- 18 to 24
- 25 to 34
- 35 to 44
- 45 to 54
- 55 to 64
- 65 to 74
- 75 or older

Gender:

- Male
- Female

PERCEPTIONS ON EDUCATION FOR SUSTAINABLE DEVELOPMENT

Appendix B: Questions of the Semi-structured Interview

1. After the workshop, how do you understand sustainable development? / Did your understanding for sustainable development change?
2. How do you perceive your role as an educator regarding sustainable development?
3. Did highlighting the concept of Education for Sustainable Development (ESD) in the workshop change the way you addressed/ will address the course in class?
4. Did highlighting the concept of ESD change the way you debate with students?
5. Did it affect your selection of teaching methodology?
6. If a session explaining the concept of sustainable development and its relation to education was conducted in the university again, would you be interested to attend it?

PERCEPTIONS ON EDUCATION FOR SUSTAINABLE DEVELOPMENT

Appendix C: IRB Approval

CASE #2017-2018-008



To: Hanan Salah Abozaied
 Cc: Dena Riad & Salma Serry
 From: Atta Gebril, Chair of the IRB
 Date: Sep. 29, 2017
 Re: Approval of study

This is to inform you that I reviewed your revised research proposal entitled "Perceptions of ESD: Prospective Changes in Values, Attitudes and Teaching Practices" and determined that it required consultation with the IRB under the "expedited" heading. As you are aware, the members of the IRB suggested certain revisions to the original proposal, but your new version addresses these concerns successfully. The revised proposal used appropriate procedures to minimize risks to human subjects and that adequate provision was made for confidentiality and data anonymity of participants in any published record. I believe you will also make adequate provision for obtaining informed consent of the participants.

This approval letter was issued under the assumption that you have not started data collection for your research project. Any data collected before receiving this letter could not be used since this is a violation of the IRB policy.

Please note that IRB approval does not automatically ensure approval by CAPMAS, an Egyptian government agency responsible for approving some types of off-campus research. CAPMAS issues are handled at AUC by the office of the University Counsellor, Dr. Ashraf Hatem. The IRB is not in a position to offer any opinion on CAPMAS issues, and takes no responsibility for obtaining CAPMAS approval.

This approval is valid for only one year. In case you have not finished data collection within a year, you need to apply for an extension.

Thank you and good luck.

A handwritten signature in black ink, appearing to read 'Atta Gebril'.

Dr. Atta Gebril
 IRB chair, The American University in Cairo
 2046 HUSS Building
 T: 02-26151919
 Email: agebril@aucegypt.edu

Institutional Review Board
 The American University in Cairo
 AUC Avenue, P.O. Box 74
 New Cairo 11835, Egypt
 tel 20.2.2615.1000
 fax 20.2.27957565
 Email: aucirb@aucegypt.edu

PERCEPTIONS ON EDUCATION FOR SUSTAINABLE DEVELOPMENT

Appendix D: Consent Form
Documentation of Informed Consent for Participation in Research Study

Project Title: *Perceptions of ESD: Prospective Changes in Values, Attitudes and Teaching Practices*

Principal Investigator: *Hanan Salah Abozaied* **E-mail:** hanan.abozaied@aucegypt.edu
Mobile: 01003456005

You are being asked to participate in a research study. The purpose of the research is to investigate faculty members' perceptions of Sustainable development (SD) and Education for Sustainable Development (ESD) as well as their role to address sustainability issues in classroom. The findings may be published and presented. The expected duration of your participation is one semester, approximately 3 months.

The procedures of the research will be as follows. Firstly, a survey will be given to participants prior to the semester to check faculty members' perceptions of SD and ESD. Secondly, a workshop will be conducted to expand discussion about the concepts. Finally, towards the end of the semester, a follow-up interview will be conducted to examine the influence of the workshop on their teaching practices.

There will not be certain risks or discomforts associated with this research.

There will be benefits to you from this research. The research will increase faculty members' awareness of the global issue of Sustainable Development. It will make academics more engaged in the worldwide calls for redirecting higher education curriculum to address sustainability.

The information you provide for purposes of this research is confidential.

Questions about the research should be directed to Hanan Abozaied at 01003456005 or via e-mail: hanan.abozaied@aucegypt.edu

Participation in this study is voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty or the loss of benefits to which you are otherwise entitled.

Signature _____

Printed Name _____

Date _____

PERCEPTIONS ON EDUCATION FOR SUSTAINABLE DEVELOPMENT

Appendix E: Audio Recording and Transcribing Consent Form

Perceptions of ESD in Egypt: Prospective Changes Teaching Practices

By Hanan Abozaied

American University in Cairo (AUC)

The research includes audio recording of your interview with the researcher. Your name and other identifying information will not be associated with the audio recording or the transcript. Only the researcher will be able to listen to the recordings. All the recordings will be transcribed by the researcher and deleted once the transcriptions are checked for accuracy. Transcripts of your interview may be reproduced in whole or in part for use in presentations or written products that result from this study. Neither your name nor any other identifying information (such as your voice or picture) will be used in presentations or in written products resulting from the study. By signing this form, I am allowing the researcher to audio tape me as part of this research.

Signature: _____

Date: _____

Adapted from:

http://www.massbay.edu/uploadedfiles/second_level_pages/directory/sample_audio_recording_consent_form.pdf

PERCEPTIONS ON EDUCATION FOR SUSTAINABLE DEVELOPMENT

Appendix F: CAPMAS Approval



قرار رئيس الجهاز المركزي للتعبئة العامة والإحصاء
بالتفويض

رقم (٨٠٠) لسنة ٢٠١٧

في شأن قيام الباحثة / حنان صلاح يوسف أبو زيد - المسجلة لدرجة الماجستير قسم التعليم العالي / كلية الدراسات العليا في التربية والتعليم / الجامعة الأمريكية بالقاهرة بإجراء دراسة ميدانية بعنوان : (المفاهيم المختلفة للتعليم من أجل تنمية مستدامة : تفسيرات محتملة في الممارسات التعليمية لتحقيق ما يعنيه مصطلح التنمية المستدامة وعلاقتها بالتعليم لدى المعلمين بالجامعة).

رئيس الجهاز

- بعد الاطلاع على القرار الجمهوري رقم (٢٩١٥) لسنة ١٩٦٤ بشأن إنشاء الجهاز المركزي للتعبئة العامة والإحصاء .
- وعلى قرار رئيس الجهاز رقم (٢٣١) لسنة ١٩٦٨ في شأن إجراء الإحصاءات والتعدادات والاستفتاءات والاستقصاءات.
- وعلى قرار رئيس الجهاز رقم (١٣١٤) لسنة ٢٠٠٧ بشأن التفويض في بعض الاختصاصات .
- وعلى كتاب كلية الدراسات العليا في التربية والتعليم/ الجامعة الأمريكية بالقاهرة/ الوارد للجهاز في ٢٤/٩/٢٠١٧.

قرار

- مادة ١: تقوم الباحثة / حنان صلاح يوسف أبو زيد - المسجلة لدرجة الماجستير قسم التعليم العالي / كلية الدراسات العليا في التربية والتعليم / الجامعة الأمريكية بالقاهرة - بإجراء الدراسة الميدانية المشار إليها أعلاه .
- مادة ٢: تجري الدراسة على عينة حجمها (١٢) أثنتا عشر الأكاديمين لتدريس المستوى المتقدم باللغة الإنجليزية وذلك .
- مادة ٣: تجمع البيانات اللازمة لهذه الدراسة بموجب الاستمارة المعدة لذلك وعدد صفحاتها ثلاث صفحات معتمدة كل منهما بخاتم الجهاز المركزي للتعبئة العامة والإحصاء .
- مادة ٤: تسمى بحفظه القاهرة - وتحت إشراف السيد أمين عام الجامعة بتسيير إجراء هذه الدراسة الميدانية - مع مراعاة الضوابط الخاصة بتقييم درجة سرية البيانات والمعلومات المتداوله مسبقا بمعرفة كل جهة طبقا لما جاء بخطة الأمن بها.
- مادة ٥: يراعى موافقة مفردات العينة - وسرية البيانات الفردية طبقا لقانون الجهاز رقم (٣٥) لسنة ١٩٦٠ والمعدل بالقانون رقم (٢٨) لسنة ١٩٨٢ وعدم استخدام البيانات التي يتم جمعها لأغراض أخرى غير أغراض هذه الدراسة.
- مادة ٦: يجري العمل الميداني خلال ثلاثة أشهر من تاريخ صدور هذا القرار .
- مادة ٧: يوافي الجهاز المركزي للتعبئة العامة والإحصاء بنسخة من النتائج النهائية لهذه الدراسة .
- مادة ٨: ينفذ هذا القرار من تاريخ صدوره .

صدر في: ٢٠١٧/٩/٢٤

مدير عام الإدارة العامة للأمن

PERCEPTIONS ON EDUCATION FOR SUSTAINABLE DEVELOPMENT



الجهاز المركزي للتعبئة العامة والإحصاء

الموضوع:

القييد: ٢٠١٧/٩/٢٤

المرفقات:

التاريخ: ٢٠١٧/٩/٢٤

السيد الأستاذ الدكتور/ مستشار الجامعة الأمريكية بالقاهرة
تحية طيبة وبعد ،،،

بالإشارة لكتاب سيادتكم الوارد للجهاز في ٢٠١٧/٩/٢٤ بشأن طلب الموافقة على قيام الباحثة / حنان صلاح يوسف أبو زيد - المسجلة لدرجة الماجستير قسم التعليم العالي كلية الدراسات العليا في التربية والتعليم / الجامعة الأمريكية بالقاهرة بإجراء دراسة ميدانية بعنوان: (المفاهيم المختلفة للتعليم من أجل تنمية مستدامة : تغيرات محتملة في الممارسات التعليمية لتحقيق ما يعنيه مصطلح التنمية المستدامة وعلاقتها بالتعليم لدى المعلمين بالجامعة).

وذلك وفقا للإطار المعد لهذا الغرض.

يرجى التكرم بالإحاطة بأن الجهاز المركزي للتعبئة العامة والإحصاء يوافق على قيام الباحثة حنان صلاح يوسف أبو زيد - بإجراء الدراسة الميدانية المشار إليها بعالية وفقا للقرار رقم (٥٠٨) لسنة ٢٠١٧ اللازم في هذا الشأن وعلى إن يوافق الجهاز النتائج النهائية كاملة فور الانتهاء من إعدادها طبقا للمادة رقم (٧) من القرار

وتفضلوا بقبول فائق الاحترام ،،،

محمد ممدوح محمد
مدير عام الإدارة العامة للأمن

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Student's Name: **Hanan Salah Youssef Abozaied**

Student ID no. 800140079

Degree: (check one) **Master's** Doctoral

Title of Dissertation "**Perceptions of Education for Sustainable Development in Egypt: Prospective Changes in Teaching Practices**"

Date of Graduation (Month Year): June 2018

School and Department: Graduate School of Education, Department of International & Comparative Education

Thesis Advisor: Dr. Heba El Deghaidy

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Hanan AboZaid

3. Date (ESSENTIAL):

2/5/2018

Perceptions of Education for Sustainable Development in Egypt: Prospective Changes in Teaching Practices

A Thesis Submitted by

Hanan Salah Youssef Abozaied

Submitted to the Department of International & Comparative Education
May 2, 2018

In partial fulfillment of the requirements for
The degree of Master of Arts
in Educational Leadership
has been approved by

Name of supervisor Dr. Heba El Deghaidy

Thesis Supervisor Signature H. El-Deghaidy

Affiliation: GSE Date 02/05/2018

Name of first reader Dr. Jennifer Skaggs

Thesis first Reader Signature Jennifer Skaggs

Affiliation: GSE Date 2/5/18

Name of second reader Dr. Mustafa Toprak

Thesis Second Reader Signature M. Toprak

Affiliation: GSE Date

Dr. Heba EL-Deghaidy H. El-Deghaidy

Department Chair

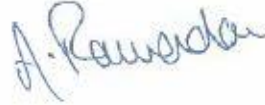
Date

Dr. Adham Ramadan A. Ramadan

Acting Dean of GSE

Date May 15, 2018

To: AUC Library



From: Dr. Adham Ramadan

Acting Dean, Graduate School of Education

Subject: Master's Thesis, Hanan Salah Youssef Abozaied, 800140079

Date: May 10, 2018

Please find attached the signed copy of the thesis submitted by Ms. Hanan Salah Youssef Abozaied in partial fulfillment for the requirements of the MA degree in Educational Leadership, and is ready for binding and display in the Library.

Name of Student: Hanan Salah Youssef Abozaied

Program: Educational Leadership

Supervisor: Dr. Heba El Deghaidy

Title: " Perceptions of Education for Sustainable Development in Egypt: Prospective Changes in Teaching Practices"

cc: Registrar

Dean of Graduate Studies
